KRATTENMAKER O'CONNOR & INGBER P.C.

ATTORNEYS AT LAW

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CHARLES G. KRATTENMAKER, JR.
MARY WINSTANLEY O'CONNOR
KENNETH INGBER

OF COUNSEL: RAYMOND SAYEG

August 25, 2020

VIA EMAIL AND FIRST-CLASS MAIL

Jennifer Raitt, Director
Department of Planning and Community
Development
Town of Arlington
730 Massachusetts Avenue
Arlington, MA 02476

Re: Special Permit Application of Eskar, LLC, 23 Broadway, Arlington, MA

Dear Director Raitt:

On behalf of Eskar, LLC (hereinafter referred to as "Eskar"), I am providing the additional information requested by Erin Zwirko, Assistant Director, in her email of June 18, 2020. These materials supplement the application previously filed with your office.

1. Site Plan

Enclosed is a site plan which includes, among other information, information as to where the customer bicycle parking will be located, the twelve (12) designated spaces for use by Eskar customers and how the traffic will flow in the parking lot. I also enclose an existing site conditions plan.

2. Floor Plan

Enlarged floor plan, which indicates, among other things, how the customer check-in is separated from the sales floor, the flow of patrons through the space and the employee inside bicycle parking.

3. Sign Rendering/Plan

Enclosed is the sign elevation for the exterior wall sign, which is placed in context with the Broadway side of the façade.

4. LEED

Enclosed is a letter from AEPMI Design & Building Consultants, which references the sustainable methods in the design, construction and operation of the space to be occupied by Eskar. Also enclosed is the LEED scoresheet.

5. Traffic Impact Report

The Transportation Impact Assessment prepared by Vanasse & Associates, Inc. is one hundred forty (140) pages and will be sent in a separate email to you.

The report references, inter alia, traffic counts, customer parking, other tenant parking, the flow of traffic in the parking lot, the location of accessible parking, proposed locations for ride-share pickup and drop off and the adequacy of available parking in the area.

6. Transportation Demand Management Plan

Enclosed is Eskar's proposed transportation demand management plan.

7. Arlington Police Department

Michael Hunnewell made contact with Captain James Curran of the Arlington Police Department to discuss the preopening, post-opening, security and traffic management.

Captain Curran advised him that any meeting on these issues would not occur until a month prior to opening at which time Captain Curran would visit the site for a tour of the space and to discuss these issue.

8. Parking Spaces

I enclose a letter agreement dated June 24, 2020 between the applicant and the owner of 23 Broadway, agreeing to lease to Eskar twelve (12) of the sixteen (16) parking spaces onsite.

9. Memorandum

Enclosed is the memorandum required in connection with the relief requested.

These materials supplement the previous submission, which included the Dimensional and Parking Information Sheet, application for special permit, lease and photographs.

Please schedule this matter for a hearing on the special permit. In advance, I thank you.

Very truly yours,

Mary Winstanley O'Connor

MWO/ccg
Enclosures
6934

cc: Michael Aldi
Michael Hunnewell

COMMONWEALTH OF MASSACHUSETTS

MIDDLESEX, SS.

ARLINGTON REDEVELOPMENT BOARD
Docket No.

* *
*
IN RE: *
*
Special Permit Application of Eskar Arlington, LLC, *
*
Applicant. *
*
* *

ENVIRONMENTAL IMPACT STATEMENT OF ESKAR ARLINGTON, LLC AND STATEMENT AS TO SATISFACTION OF SPECIAL PERMIT CRITERIA

On June 24, 2019, Eskar, LLC, a Massachusetts limited liability company, entered into a host community agreement (hereinafter referred to as "HCA") with the Town of Arlington to operate a marijuana retail establishment for the sale of marijuana and marijuana products at the property known and numbered as 19-23 Broadway, Unit 1F, Arlington, MA. The host community agreement was subsequently assigned by Eskar, LLC to Eskar Arlington, LLC (hereinafter referred to as the "Applicant", "Town", "Property" and "Facility", respectively).

The Applicant was selected to receive the HCA from among a number of other applicants by the Select Board after an extensive public hearing process.

The Applicant was awarded its first retail HCA for a facility it is intending to open in Northbridge, Massachusetts.

The Applicant's Vice President, Michael Aldi, one of the principals, has over a decade of experience in owning and operating various successful bar and restaurant establishments in Massachusetts.

The Applicant's principals have extensive experience in employee training on the handling of alcohol and have updated their training to meet the regulatory requirements for marijuana handling and sales. All prospective employees will be required to submit to background checks, training and continuing education.

The Applicant is expected to create over thirty (30) new jobs in the Town. Diversity in hiring is important to the Applicant and it intends to employ several initiatives, including interviewing minority applicants for every open position, performing a gender pay gap audit once a year and providing a mentor-protégé program for underprivileged people looking to enter the cannabis industry.

The Applicant has submitted to the Town in support of the HCA a business plan, which details, among other things, employee training and hiring protocols. A copy of the business plan was previously provided to the Board. The business plan also includes a detailed security plan and a traffic and parking plan. A detailed traffic study has been prepared by Vanasse & Associates, Inc. and is submitted herewith.

The HCA requires the Applicant to make quarterly community impact payments, so-called, to the Town in an amount equal to three percent (3%) of the gross sales of all marijuana and marijuana-infused products at the Facility. This will likely be a significant source of revenue for the Town.

The Property is located in the B-2A – Major Business District. Article 5, Section 5.5.1(c).

Given that the Town has selected the Applicant as an operator and entered an HCA with the Applicant, the Applicant seeks a special permit for the use proposed, which is permitted by special permit in a B-2A zoning district. The Applicant also seeks approval for its exterior signage, which is included with the application materials.

The Applicant suggests, as detailed hereinbelow that it satisfies: (a) those environmental impact criteria referenced in the Arlington Zoning By-law, which apply; and (b) the special permit criteria set out in Article 3, Section 3.3.3 of the By-law.

ENVIRONMENTAL DESIGN REVIEW STANDARDS AND IMPACT STATEMENT

The special permit requested is one for which a special permit is required and is within the jurisdiction of the Board. Article 3, Section 3.4.2. The signage approval requested comports with Article 6, Section 6.2.1, et seq.

Most of the environmental design review standards set out at Article 3, Section 3.4.4 primarily apply to the development of a proposed site. The Property is existing and the Applicant is intending to remodel the Facility, previously occupied by the New England Teamsters Credit Union, as detailed in the floor plan submitted.

- Preservation of Landscape, Relation of Building to Environment, Open Space, Surface Water Drainage, Utility Service, Microclimate and Sustainable Building and Site Design – This request is for a use permit in an existing building. There will be only minor changes to the exterior landscape of the grounds and/or the exterior of the building.

- Advertising Features – The proposed outdoor signage submitted for approval is in conformance with the Arlington Zoning Bylaw. The Applicant states that the signage proposed does not detract from the use and enjoyment of the Building and/or the surrounding properties in this B-2A zoning district. The sign will have a stainless steel background plate anchored five feet above the sidewalk level on the existing brick exterior wall. The word "Eskar" as depicted on the attached plan will be raised halo lit illuminated metal lettering. The sign is 2'3" in width, 8'8" in length and will have a total signage area of 19.5 square feet.

Article 6, Section 6.2.5(D)(10) requires that all wall signs in the business district be no more than forty square feet in area and no more than twenty-five feet in height.

- Special Features – There are no exterior "special features".

- Circulation – The Property has seventeen (17) parking spaces. Presently, entrance to the Property is from a drive entrance off of Broadway and visitors to the Property exit from the parking area onto Sunnyside Avenue, which intersects with Broadway. This allows for orderly circulation, safe use of the parking lot and no conflicts between vehicles seeking to enter or exit the parking lot.

  The Applicant is required to have three short-term and one long-term bicycle parking spaces. The Applicant is proposing six bicycle parking spaces.

- Safety – The Applicant states that all open and enclosed spaces on the Property are accessible to fire, police and other emergency personnel and equipment.

  The interior of the Facility will be outfitted with video surveillance equipment as detailed in the safety and security plan submitted to the Select Board. A copy of the safety and security plan was previously submitted to the Board.

- Heritage – There will be no removal or disruption of historic, traditional or significant uses, structures or architectural elements. The Applicant also suggests that the proposed signage comports with the architecture in the area.

The Applicant respectfully suggests that there will be no negative or adverse impact resulting from the approval of the special permit for the use of the Facility as a marijuana retailer.

Special Permit Criteria

The Board is required to grant the special permit requested provided it finds that the adverse effects, if any, of the proposed use will not outweigh its beneficial impacts to the Town or neighborhood, in view of the characteristics of the site and of the proposal in relation to the site. In making such a decision, the Board is required to include findings that the criteria set forth below for a special permit are met.

The Applicant states that it satisfies the criteria set out in Article 3, Section 3.3.3 of the Bylaw for the grant of a special permit.

1. The use requested, a marijuana retail shop, is listed as a use permitted with a special permit in the use regulations for the B-2A zoning district. Article 5, §5.5.3. The B-2A Zoning District is defined as the "Major Business District" in the Town. The B-2A District is located along, among other streets, Broadway. This district generally contains retail and service uses that serve the needs of a large neighborhood area. Article 5, §5.5.1(c).

2. The requested use is essential or desirable to the public convenience or welfare. In 2016, the registered voters in Massachusetts voted to legalize the sale of recreational marijuana in Massachusetts. Arlington registered voters approved the question. It is desirable to provide this service to residents in accordance with the expressed intent of the electorate and legislature in a regulated environment. Moreover, the proposed use will provide income to be added to the tax revenue by the requirement that the Applicant remit an amount equal to three percent (3%) of gross sales to the Town.

3. The requested use will not overload any public water, drainage or sewer system or any other municipal system to such an extent that the requested use or any development use in the immediate area of the Town will be unduly subjected to hazards affecting health, safety or the general welfare. The use proposed will replace a banking use formerly on the Property. There will be no additional requirements placed on municipal systems and there will be no development of the Property which will unduly subject residents to hazards affecting health, safety or the general welfare.

4. Special regulations. The proposed site of the Facility is not within: (a) 500 feet of a K-12 public or private school; (b) 300 feet of Town of Arlington playgrounds or recreational facilities; and/or (c) 200 feet of a Town of Arlington Public Library.

5. The requested use will not impair the integrity or character of the district or adjoining districts, nor be detrimental to the health, morals or welfare. The use is a permitted use in the B-2A zoning district. The Applicant intends only to make minor changes to the exterior of the Property as detailed on the plans.

   The interior of the Facility will have a more organic and historic feel. The interior will not be linoleum floors and floodlights, but will be wood and steel with complimentary lighting. See the interior plan for the Facility which is attached. The proposed use is subject to detailed security protocols and regulations and the Applicant is required to work closely with Town law enforcement.

6. The requested use will not, by its addition to this neighborhood, cause an excess of the particular use that could be detrimental to the character of said neighborhood. The Select Board, in selecting the Applicant among a number of others to receive a host agreement, concluded, among other things, that the proposed site was most appropriate due to the surrounding businesses. Further, there are no other marijuana establishments in the area.

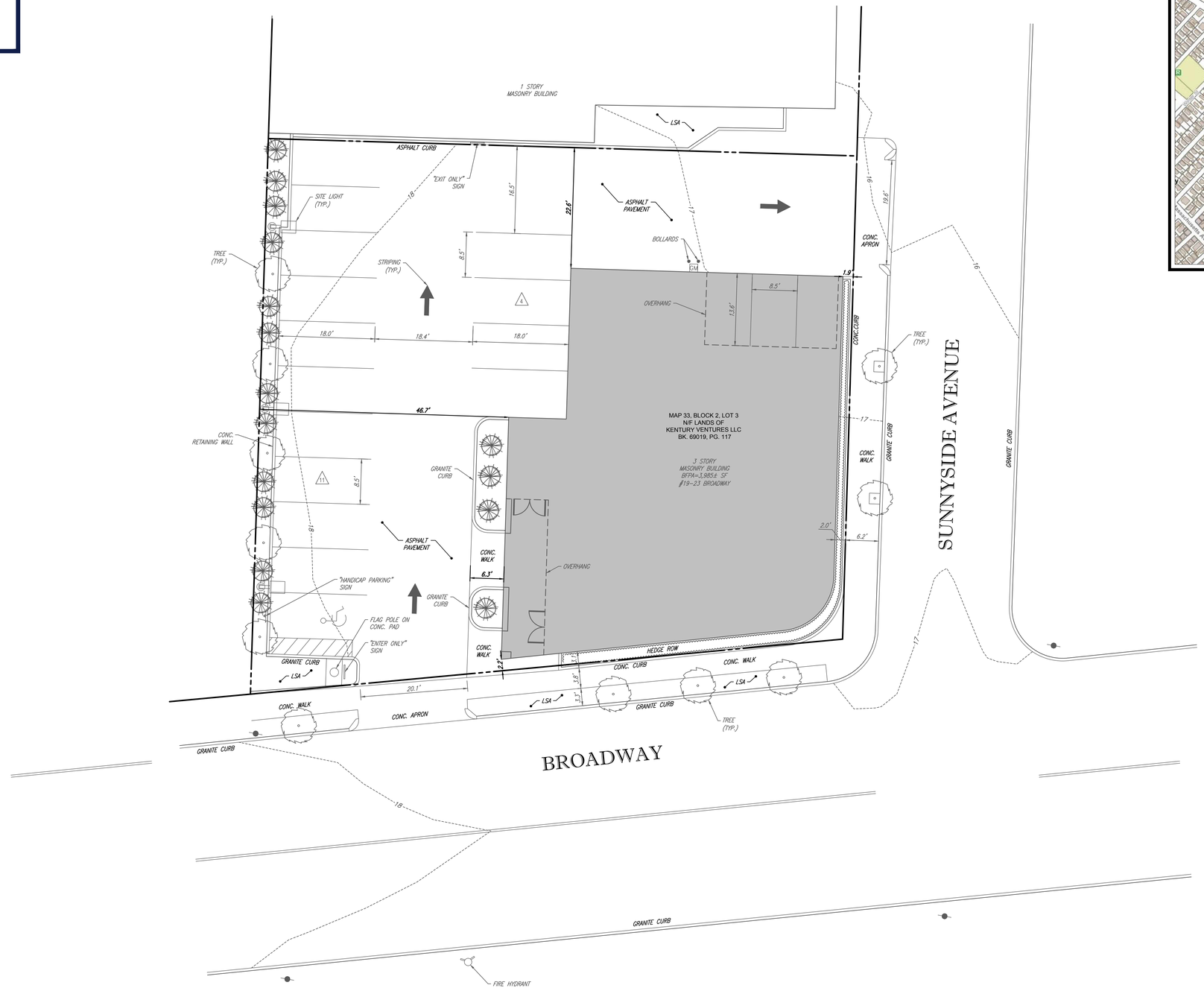
The Applicant maintains that it satisfies all of the criteria for the grant of a special permit to operate a marijuana retail establishment at this Property and requests that the Board approve the special permit. The Applicant also maintains that the proposed signage complies with the Town's signage bylaw and requests approval of the proposed sign.

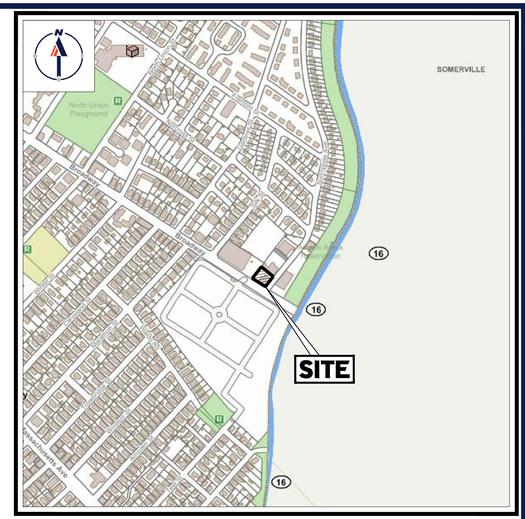
ESKAR ARLINGTON, LLC

By its attorney,

Mary Winstanley O'Connor, Esq.
Krattenmaker O'Connor & Ingber P.C.
One McKinley Square, 5th Floor
Boston, MA 02109
(617) 523-1010

Dated: 8/25/2020





LOCUS MAP

SCALE: 1" = 500'
SOURCE: ARLINGTON GIS

EXISTING CONDITIONS PLAN NOTES

1. PROPERTY LINE INFORMATION DEPICTED ON THIS PLAN IS TAKEN FROM "ZONING SITE PLAN", PREPARED BY WOO & WILLIAMS, DATED 03/10/89 AND IS NOT THE RESULT OF AN ACTUAL FIELD SURVEY.
2. TOPOGRAPHIC INFORMATION DEPICTED ON THIS PLAN IS BASED ON ARLINGTON GIS AND IS NOT THE RESULT OF AN ACTUAL FIELD SURVEY.
3. BUILDING LOCATIONS DEPICTED ON THIS PLAN IS TAKEN FROM "ZONING SITE PLAN", PREPARED BY WOO & WILLIAMS, DATED MARCH 10, 1989 AND IS NOT THE RESULT OF AN ACTUAL FIELD SURVEY.
4. THE PERMANENT STRUCTURES DEPICTED HEREIN ARE APPROXIMATELY LOCATED ON THE GROUND AS SHOW.
5. PLAN CONTENTS ARE THE RESULT OF A COMPILATION OF THE ABOVE REFERENCES SOURCES AND VARIOUS RECORD AND NON-RECORD INFORMATION, AS WELL AS A VISUAL OBSERVATION CONDUCTED BY BOHLER ON AUGUST 17, 2020. THIS PLAN IS NOT THE RESULT OF AN ACTUAL FIELD SURVEY.
6. THE PURPOSE OF THIS PLAN IS TO DEPICT THE SITE IN A GENERAL NATURE AND INDICATE THE PROPOSED CHANGE IN USE ONLY.

10 5 2.5 0 10
1"= 10'

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY

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PERMIT SET

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PROJECT No.:	W201195
DRAWN BY:	NPD
CHECKED BY:	RMM
DATE:	08/19/2020
CAD I.D.:	W201195-CVL-0

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

ESKAR

PROPOSED DEVELOPMENT

MAP #33, BLOCK #2, LOT #3
23 BROADWAY
TOWN OF ARLINGTON
MIDDLESEX COUNTY,
MASSACHUSETTS

BOHLER
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
www.BohlerEngineering.com

J.G. SWERLING
PROFESSIONAL ENGINEER
MASSACHUSETTS LICENSE No. 41697
NEW HAMPSHIRE LICENSE No. 14695
MAINE LICENSE No. 13818
CONNECTICUT LICENSE No. 38785
RHODE ISLAND LICENSE No. 11425

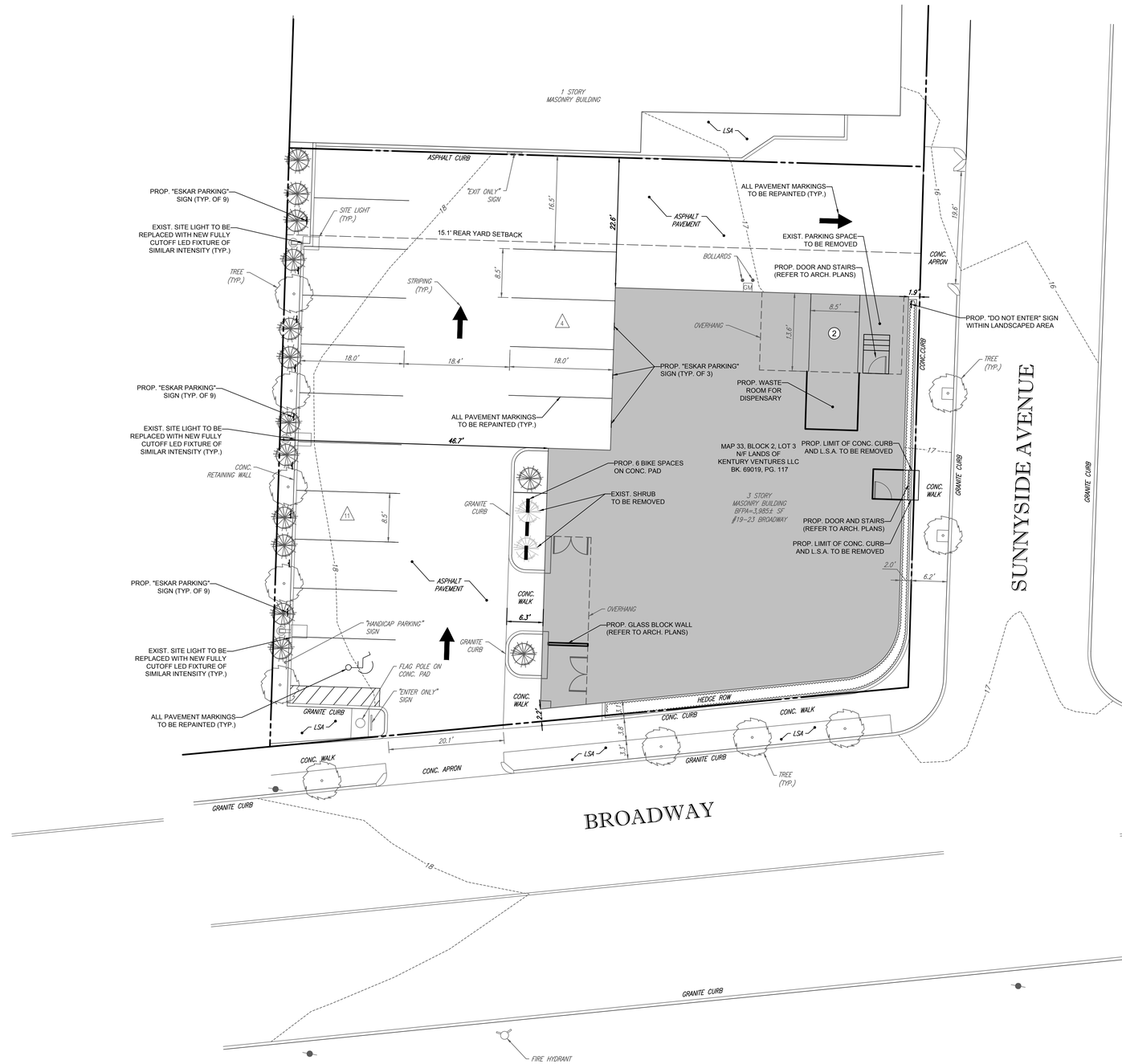
SHEET TITLE:

EXISTING CONDITIONS PLAN

SHEET NUMBER:

1

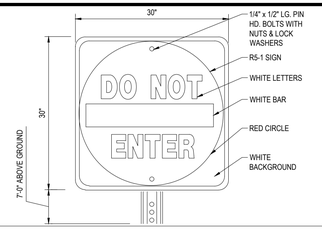
ORG. DATE - 08/19/2020



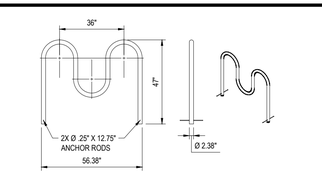
ZONING ANALYSIS TABLE

ZONING DISTRICT	- MAJOR BUSINESS (B2A) ZONING DISTRICT - RETAIL DISPENSARY REQUIRES A SPECIAL PERMIT		
ZONE CRITERIA	REQUIRED	EXISTING	PROPOSED
MINIMUM LOT AREA	N/S	10,890 SF	NO CHANGE
MINIMUM LOT FRONTAGE	50 FT	110.85 FT	NO CHANGE
MAX. BUILDING COVERAGE	N/S	36.6%	NO CHANGE
MIN. FRONT SETBACK	0 FT	1.9 FT	NO CHANGE
MIN. SIDE SETBACK	0 FT	46.7 FT	NO CHANGE
MIN. REAR SETBACK	15.1 FT (1)	22.6 FT	NO CHANGE
MAX. BUILDING HEIGHT	35 FT	29.5 FT	NO CHANGE
MIN. OPEN SPACE	10%	10%	NO CHANGE
PARKING SPACES	10 SPACES	18 SPACES	17 SPACES
PARKING CRITERIA (9'x18')	RETAIL: 1 SPACE / 300 SF GFA 3,985 SF / 300 SF = 13.2 = 14 SPACES		
ACCESSIBLE PARKING SPACES	1 SPACE	1 SPACE	NO CHANGE
ACCESSIBLE PARKING CRITERIA (STANDARD SPACE- 8'x18' W/ 5' ACCESS AISLE) (VAN ACCESSIBLE SPACE-8'x18' W/ 8' ACCESS AISLE)	1 - 25 TOTAL PARKING SPACES = 1 ACCESSIBLE SPACE VAN ACCESSIBLE SPACES= 1 / 6 SPACES (MINIMUM 1 PER LOT)		

N/S - NOT SPECIFIED
(1) - 10 FT + (L/10) = 10 FT + (51.1 FT/10) = 15.1 FT
L = LENGTH OF A WALL PARALLEL TO LOT LINE

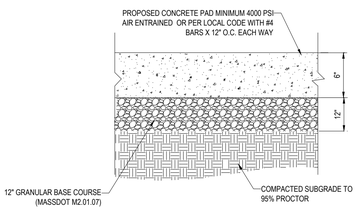


"DO NOT ENTER" SIGN — N.T.S.



NOTE:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

BIKE RACK — N.T.S.



CONCRETE PAD DETAIL — N.T.S.

ALL EXISTING TREES, SHRUBS, AND LANDSCAPED AREAS SHALL BE PRUNED/CLEANED UP

SITE PLAN NOTES

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ALL EXISTING PAVEMENT MARKINGS SHALL BE REPAINTED

10 5 2.5 0 10
1"= 10'

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
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TRANSPORTATION SERVICES

REVISIONS

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DATE:	08/19/2020
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PROJECT:

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FOR

ESKAR

PROPOSED DEVELOPMENT
MAP #33, BLOCK #2, LOT #3
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CONNECTICUT LICENSE No. 38785
RHODE ISLAND LICENSE No. 11425

SHEET TITLE:

SITE PLAN

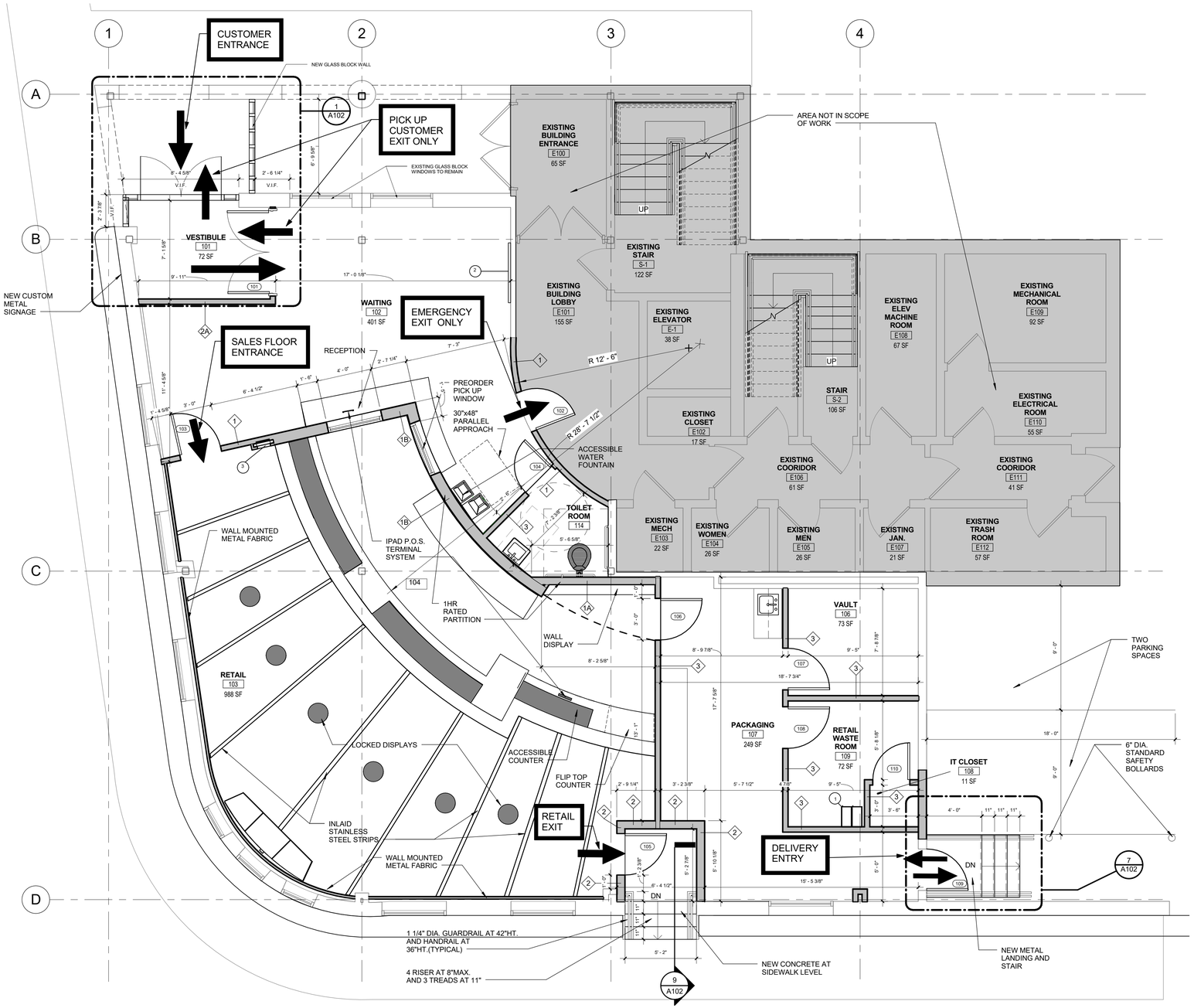
SHEET NUMBER:

2

ORG. DATE - 08/19/2020

MEANS OF EGRESS

OCCUPANT LOAD : MERCANTILE 18P TOTAL (GROSS AREA/60) 1021/60 = 18P
A2 INCIDENTAL 65P TOTAL (NET AREA/7) 455/7 = 65P
30P SHOWN



1 FIRST FLOOR CONSTRUCTION PLAN

1/4" = 1'-0"

GENERAL NOTES

1. VERIFY EXISTING CONDITIONS IN THE FIELD.
2. COORDINATE WITH THE ARCHITECT OF ANY DISCREPANCIES BETWEEN FIELD CONDITIONS AND NEW FIT OUT
3. ALLOW FOR THE INSTALLATION OF NEW SERVICES AND AS INDICATED ON MECHANICAL, ELECTRIC, PLUMBING AND TELECOM PLANS.
4. DIMENSIONS INDICATED ARE TO FACE OF GWB UNLESS OTHERWISE NOTED.

NEW WORK KEY NOTES

1. 2 TIER LOCKERS (SEE INTERIOR ELEVATIONS)
2. TV
3. FIRE EXTINGUISHER CABINET

PARTITION NOTES

1. REFER TO CODE COMPLIANCE FLOOR PLANS FOR LOCATIONS OF FIRE RATED PARTITIONS, FIRE SMOKE BARRIERS AND PARTITIONS TO PREVENT THE PASSAGE OF SMOKE.(DWG G001)
2. FIRE RATED PARTITIONS, AND ACOUSTICAL PARTITIONS EXTEND FULL HEIGHT TO THE UNDERSIDE OF GYPSUM BOARD (ATTACHED TO TRUSSES) AND/OR FLOOR DECK ABOVE AS SHOWN ON THE CODE DRAWINGS AND/OR WALL SECTIONS AND/OR PARTITION NOTES/SCHEDULE. SEAL ALL PENETRATIONS AND THE TOP/PERIMETER OF ALL PARTITIONS SPECIFIED TO EXTEND TO THE UNDERSIDE OF GYPSUM BOARD AND/OR DECK TO PREVENT THE PASSAGE OF FIRE, AND/OR SOUND.
3. FOR ARCHITECTURAL LEGENDS, ABBREVIATIONS AND SYMBOLS REFER TO SHEET G001. FOR LOCATION OF RATED PARTITIONS REFER TO DWGS. G001
4. DIMENSIONS INDICATED ARE TO FACE OF GWB UNLESS OTHERWISE NOTED.

SYMBOLS

1. (#) PARTITION TAG

LEGEND

- NEW PARTITION AND TAG REFER TO PARTITION TYPES
- NEW DOOR - SEE DOOR SCHEDULE
- EXISTING WALL TO REMAIN

AEPMI INTERNATIONAL
ARCHITECTURE ENGINEERING PROGRAM MANAGEMENT

ANSONIA, CONNECTICUT 203.751.9522
NEW YORK, NEW YORK

WWW.AEPMI.NET

CONSULTANT:

KEY PLAN:

N

Revisions

NO	DATE	DESCRIPTION

XXX - Project Information

PRINCIPAL IN CHARGE: J. OLIVETO
PROJECT MANAGER: G. CLERMONT
DESIGNER:
PROJECT ARCHITECT / ENGINEER: G. CLERMONT
DRAWN BY:

PROJECT:

ARLINGTON RETAIL DISPENSARY

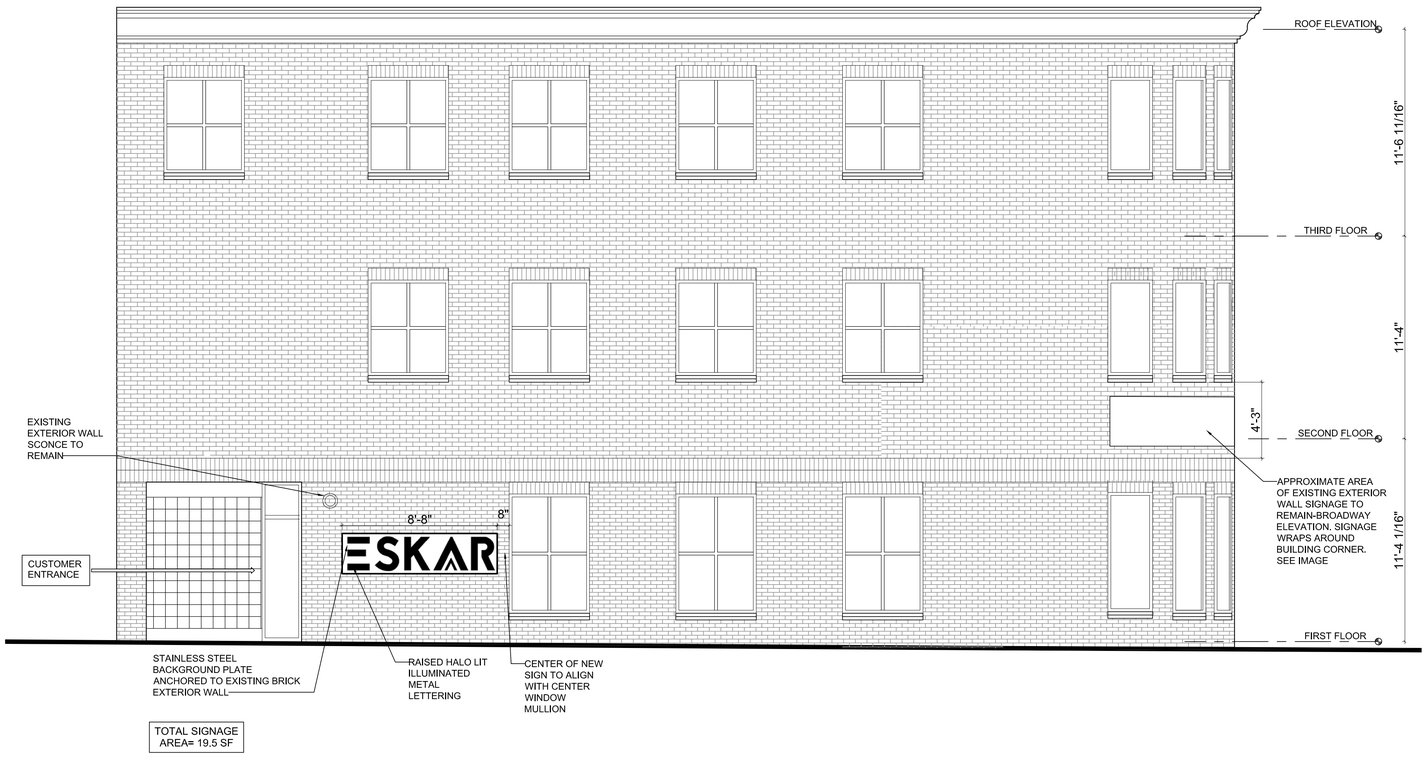
23 BROADWAY ARLINGTON, MA 02474

DRAWING TITLE:

FIRST FLOOR CONSTRUCTION PLAN

DATE: JUNE 16, 2020
SCALE: As indicated
PROJECT NUMBER: MA19160
DRAWING NO.: **A101**

1 23 BROADWAY ELEVATION - EXISTING CONDITIONS
SCALE: 1/4"=1'-0"



2 BROADWAY ELEVATION - WALL SIGN
SCALE: 1/4"=1'-0"

AEPMI INTERNATIONAL
ARCHITECTURE ENGINEERING PROGRAM MANAGEMENT

ANSONIA, CONNECTICUT 203.751.9522
NEW YORK, NEW YORK

WWW.AEPMI.NET

CONSULTANT:

KEY PLAN:

N

Revisions

NO	DATE	DESCRIPTION

PRINCIPAL IN CHARGE: J. OLIVETO
PROJECT MANAGER: G. CLERMONT
DESIGNER:
PROJECT ARCHITECT / ENGINEER
DRAWN BY:

PROJECT:

ARLINGTON RETAIL DISPENSARY

23 BROADWAY
ARLINGTON, MA 02474

DRAWING TITLE:

BROADWAY ELEVATION WALL SIGN

DATE: JUNE 16, 2020
SCALE: 3/8" = 1' - 0"
PROJECT NUMBER: MA19160
DRAWING NO.: **A201**

LEED v4 for ID+C: Retail

Project Checklist

Arlington Cannabis R

29-Jun-20

Y	?	N			
		2	Credit	Integrative Process	2

Y	?	N			
8	**8**	**20**	**Location and Transportation**		**18**
		18	Credit	LEED for Neighborhood Development Location	18
	8		Credit	Surrounding Density and Diverse Uses	8
7			Credit	Access to Quality Transit	7
1			Credit	Bicycle Facilities	1
		2	Credit	Reduced Parking Footprint	2

NOTES: Eskar will encourage the use of the two-way bus stop located within 200 feet of the customer entrance. Employess will be re-embursed for use of public transportation. The bus schedule will be made available to customers and employees within the establishment . Eskar will make bicycle storage racks available for both customers and employees.

Y	?	N			
0	**0**	**0**	**Water Efficiency**		**12**
Y			Prereq	Indoor Water Use Reduction	Required
			Credit	Indoor Water Use Reduction	12

Y	?	N			
0	**0**	**38**	**Energy and Atmosphere**		**38**
Y			Prereq	Fundamental Commissioning and Verification	Required
Y			Prereq	Minimum Energy Performance	Required
Y			Prereq	Fundamental Refrigerant Management	Required
		5	Credit	Enhanced Commissioning	5
		25	Credit	Optimize Energy Performance	25
		2	Credit	Advanced Energy Metering	2
		3	Credit	Renewable Energy Production	3
		1	Credit	Enhanced Refrigerant Management	1
		2	Credit	Green Power and Carbon Offsets	2

Y	?	N			
5	**9**	**0**	**Materials and Resources**		**14**
Y			Prereq	Storage and Collection of Recyclables	Required
Y			Prereq	Construction and Demolition Waste Management Planning	Required
1			Credit	Long-Term Commitment	1
	5		Credit	Interiors Life-Cycle Impact Reduction	5
2			Credit	Building Product Disclosure and Optimization - Environmental Product Declarations	2
	2		Credit	Building Product Disclosure and Optimization - Sourcing of Raw Materials	2

Y	?	N			
5	**7**	**4**	**Indoor Environmental Quality**		**16**
Y			Prereq	Minimum Indoor Air Quality Performance	Required
Y			Prereq	Environmental Tobacco Smoke Control	Required
	3		Credit	Enhanced Indoor Air Quality Strategies	3
3			Credit	Low-Emitting Materials	3
	1		Credit	Construction Indoor Air Quality Management Plan	1
	2		Credit	Indoor Air Quality Assessment	2
	1		Credit	Thermal Comfort	1
2			Credit	Interior Lighting	2
		3	Credit	Daylight	3
		1	Credit	Quality Views	1

NOTES: Low-Emitting materials including adhesives, paints, wall coverings will be specified. All new lighting fixtures will be energy efficient LED.

Y	?	N			
0	**0**	**6**	**Innovation**		**6**
		5	Credit	Innovation	5
		1	Credit	LEED Accredited Professional	1

Y	?	N			
0	**4**	**0**	**Regional Priority**		**4**
	1		Credit	Regional Priority: Specific Credit	1
	1		Credit	Regional Priority: Specific Credit	1
	1		Credit	Regional Priority: Specific Credit	1
	1		Credit	Regional Priority: Specific Credit	1

Y	?	N			
18	**28**	**70**	**TOTALS**	Possible Points:	**110**

Certified: 40 to 49 points, **Silver:** 50 to 59 points, **Gold:** 60 to 79 points, **Platinum:** 80+

Transportation Impact Assessment

Proposed Retail Marijuana Dispensary
21 Broadway
Arlington, Massachusetts

Prepared for:

Eskar Arlington LLC
Arlington, Massachusetts

July 2020

Prepared by:

Vanasse & Associates inc
Transportation Engineers & Planners

35 New England Business Center Drive
Suite 140
Andover, MA 01810

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FIGURES

TABLES

EXECUTIVE SUMMARY

Vanasse & Associates, Inc. (VAI) has prepared this Transportation Impact Assessment (TIA) in order to evaluate potential traffic impacts associated with the proposed marijuana dispensary to be located at 21 Broadway, in Arlington, Massachusetts (the "Project"). This study evaluates the following specific areas as they relate to the Project: i) access requirements; ii) potential off-site improvements; and iii) safety considerations; and identifies and analyzes existing and future traffic conditions, both with and without the Project.

PROJECT DESCRIPTION

The development entails the construction of a 3,000± square foot (sf) marijuana dispensary to be located at 21 Broadway in Arlington, Massachusetts. The Project site encompasses approximately 11,000± sf of land that is bounded by commercial properties to the north and west, Sunnyside Avenue to the east, and Broadway to the south. The Project site currently contains 7,600± sf of office space and a vacant 3,000± sf bank which will be renovated to accommodate the Project. The remaining office space will remain unaltered. The existing site provides a total of approximately 16 parking spaces, of which 12 spaces are allocated for the dispenasry. Access to the Project will continue to be served by way of one (1) entrance-only driveway along Broadway and one (1) exit-only driveway onto Sunnyside Avenue.

EXISTING CONDITIONS

A comprehensive field inventory of traffic conditions on the study area roadways was conducted in June 2020. The field investigation consisted of an inventory of existing roadway geometrics, traffic volumes, and operating characteristics, as well as posted speed limits and land use information within the study area. The study area for the Project contains the major roadways that provide access to the Project: Broadway and Sunnyside Avenue, as well as the intersections which are expected to accommodate the majority of Project-related traffic.

Existing Traffic Volumes

In order to determine existing traffic-volume demands and flow patterns within the study area, manual turning movement counts (TMCs) and vehicle classification counts were conducted on Thursday, June 11, 2020, during the weekday evening (4:00-6:00 PM) and on Saturday, June 13, 2020, during the Saturday midday (11:00 AM-2:00 PM) peak periods at the Broadway at Sunnyside Avenue intersection. In order to account for the reduction in traffic volumes caused by the travel restrictions enacted due to COVID-19, TMCs conducted at the Route 16 at Broadway intersection conducted on Tuesday, October 16, 2016, during the weekday evening peak periods were seasonally adjusted and grown to represent theoretical average-month 2020 traffic volumes. Based on this comparison, the TMCs conducted in June 2020 were found to be approximately 48.8% lower than anticipated. The June 2020 counts were increased by a factor of 2.05 to provide a conservative estimate of roadway operating conditions. Historic Saturday midday peak period TMCs were not available at the Route 16 at Broadway intersection.

Additionally, traffic volumes for full occupancy of the existing office space were generated using information available from the Institute of Transportation Engineers (ITE)[1] for the appropriate land use and were assigned onto the study area roadway network based on the existing traffic patterns within the study area.

A review of the peak-period traffic counts indicates that the weekday evening peak hour generally occurs between 4:30 and 5:30 PM with the Saturday midday peak hour generally occurring between 12:45 and 1:45 PM.

Motor Vehicle Crash Data

Motor vehicle crash data was acquired from the Massachusetts Department of Transportation (MassDOT) Safety Management/Traffic Operations Unit for the most recent five-year period available (2013 through 2017) in order to examine motor vehicle crash trends occurring within the study area. The intersection of Route 16 at Broadway experienced the highest frequency of accidents over the five-year review period with a total of 50 accidents reported at the intersection, averaging 10.0 accidents per year. The majority of accidents involved property damage only (32 out of 50), occurred on dry pavement (42 out of 50), during daylight (26 out of 50), and involved angle type collisions (31 out of 50). The intersection of Route 16 at Broadway was found to have a motor vehicle crash rate above the MassDOT average for the District in which the Project is located (District 4). No fatalities were reported at any of the study area intersections over the five year period reviewed. In addition, the Highway Safety Improvement Program (HSIP) database was reviewed. The intersection of Route 16 at Broadway is listed as a HSIP cluster in the most recent (2015-2017) HSIP cluster listing. The Broadway at Sunnyside Avenue intersection is not listed as an HSIP location and has a crash rate below the MassDOT average.

FUTURE CONDITIONS

Traffic volumes within the study area were projected to 2027, which reflects a seven-year planning horizon consistent with state traffic study guidelines. The future condition traffic-volume projections incorporated identified specific developments by others expected to be complete by 2027, as well as general background traffic growth as a result of development external to the study area and presently unforeseen projects. Anticipated project-generated traffic added to these future conditions reflect 2027 Build conditions with the Project.

[1] *Trip Generation*, 10th Edition; Institute of Transportation Engineers; Washington, DC; 2017.

Background Traffic Growth

Traffic-volume data compiled by MassDOT from permanent count stations and historic traffic counts in the area were reviewed in order to determine general background traffic growth trends. Based on this data, it was determined that traffic volumes within the study area have fluctuated over the past several years. In order to be consistent with previous traffic studies in the area, a 0.5 percent per year compounded annual background traffic growth rate was used in order to account for future traffic growth and presently unforeseen development within the study area.

Specific Development by Others

The Town of Arlington and the City of Somerville were contacted in order to determine if there are any planned or approved specific development projects within the area that would have an impact on future traffic volumes at the study intersections. Based on these discussions, three (3) projects were identified in the immediate area of the project site, including a Mixed-Use Development at 11 Sunnyside Avenue, a Proposed Residential Development at 34 North Street, and a Hotel at 1154 Broadway.

As mentioned, the Project site formerly accomodated a 3,000 sf bank which is currently vacant. Traffic volumes associated with the reoccupation of the vacant 3,000 sf bank have been generated using information available from the ITE[2] for the appropriate land use and were assigned onto the study area roadway network.

Planned Roadway Improvements

The Town of Arlington Engineering Department was contacted in order to determine if there were any planned roadway improvement projects expected to be completed within the study area. Based on these discussions, no improvements are planned beyond general maintenance.

No-Build Traffic Volumes

The 2027 No-Build weekday morning and evening peak-hour traffic-volume networks were developed by applying the 0.5 percent per year compounded annual background traffic growth rate to the 2020 Existing peak-hour traffic volumes and then adding the traffic volumes associated with the identified specific development projects by others.

Site-Generated Traffic Volumes

The proposed project entails the construction of a 3,000 sf marijuana dispensary. In order to develop the traffic characteristics of the Project, trip-generation statistics published by the Institute of Transportation Engineers (ITE)[3] for a similar land use as that proposed were used. The ITE Land Use Code (LUC) *LUC 882, Marijuana Dispensary* was used to develop the traffic characteristics of the proposed 3,000 sf marijuana dispensary.

The proposed 3,000 sf marijuana dispensary will generate approximately 66 vehicle trips (33 entering and 33 exiting) during the weekday evening peak-hour and 109 vehicle trips (51 entering and 58 exiting) during the Saturday midday peak-hour. It should be noted that the typical opening traffic flow volumes can be higher for the first few months after opening.

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[2] *Ibid*

[3] *Ibid 1.*

Trip Distribution and Assignment

The directional distribution of the site-generated trips to and from the proposed development were determined based on a review of existing travel patterns at the study area intersections. In summary, 80 percent will arrive and depart the site to/from Broadway to the east, and 20 percent will arrive and depart the site to/from Broadway to the west.

TRAFFIC OPERATIONS ANALYSIS

In order to assess the impact of the proposed marijuana dispensary on the roadway network, traffic operations analyses were performed at the study intersections under 2020 Existing, 2027 No-Build and 2027 Build conditions. The addition of site-related traffic will result in a measurable, but not a significant, impact on overall operations at the study area intersections.

PARKING

In order to determine the availability of public parking in the vicinity of the Project site, a parking demand survey was performed on-street along Broadway between the Somerville City Line and Cleveland Street. On-street parking is provided along Broadway adjacent to the site and consists of approximately 62 spaces. The on-street parking is unmetered and designed for shorter stays and is restricted to one-hour parking only. The overall peak parking demand period in the vicinity of the project was found to occur between 2:30-3:30 PM peak period with 56 available parking spaces. Based upon this data it can be concluded that there is sufficient availability of on-street parking spaces in the area in addition to the 12 spaces on-site.

RECOMMENDATIONS

A transportation improvement program has been developed that is designed to provide safe and efficient access to the Project and address the unique characteristics of marijuana dispensaries study. The following improvements have been recommended as a part of this evaluation.

Project Access

Access to the Project will continue to be provided by way of one (1) entrance-only driveway along Broadway and one (1) exit-only driveway onto Sunnyside Avenue. The following recommendations are offered with respect to the design and operation of the Project site driveway:

- The exit driveway onto Sunnyside Avenue should be placed under STOP-sign (Manual of Uniform Traffic Control Designation R1-1) control, with a painted STOP-bar included. Do not enter signs should be installed facing Sunnyside Avenue.

- Pavement markings reinforcing the one-way operation of the Project driveway should be painted within the Project site.

- Illumination should be provided at the driveways.

- All signs and other pavement markings to be installed within the Development site shall conform to the applicable standards of the current Manual on Uniform Traffic Devices (MUTCD).[4]

- Signs and landscaping adjacent to the Project site driveway intersections should be designed and maintained so as not to restrict lines of sight.

Transportation Demand Management (TDM) Plan

As is the case with many developments, a major focus of the traffic mitigation plan focuses on the reduction of single-occupant vehicles arriving and departing to and from the site. This is predominantly accomplished by developing a comprehensive Transportation Demand Management (TDM) strategy. The proponent is committed to supporting a balanced multimodal transportation plan to serve the employees and patrons of the site. The major features of this TDM plan that support this commitment are as follows:

- ***Designation of a Transportation Coordinator -*** The transportation coordinator oversees all transportation issues including managing the TDM measures, parking, loading, and service. The marijuana dispensary will have a transportation coordinator.

- ***Provision of Transit Schedules*** - Links to the MBTA website will be included on the marijuana dispensary website. In addition, the project proponent will post information regarding public transportation services, maps, schedules, and fare information in a central location.

- ***Bicycling Resources -*** Secured bicycle spaces will be provided outside the building for patrons.

- ***Ride Share Accommodations –*** Accommodations will be provided to encourage the use of ride-sharing to facilitate drop-offs and pick-ups. Three (3) designated uber/lyft/taxi spaces will be provided directly in front of the site. In addition, drop-off and pick-up activity can circulate through the site from Broadway to Sunnyside Avenue.

The project proponent will investigate the implementation of these traffic reduction strategies and will work with the Town to implement such programs.

Parking

A total of 16 parking spaces are provided on the site of which 12 spaces are allocated for the proposed marijuana dispensary. The on-street parking supply along Broadway between the Somerville City Line and Cleveland Street is 62 spaces, most of which are vacant. In order to enhance compliance where on-street parking regulations, the Project proponent will provide new signage updating and formalizing the existing on-street parking regulations along Broadway between the Somerville City Line and Cleveland Street. Specific area parking includes:

- Three (3) uber/lyft/taxi reserved spaces in front of the building.

- 52 regulated 1-hour spaces along Broadway between the Somerville City Line and Cleveland Street.

Overall, there is adequate parking in the artea to support the Project.

[4] *Manual on Uniform Traffic Control Devices (MUTCD)*; Federal Highway Administration; Washington, D.C.; 2009

OPENING CONDITIONS OPERATIONS PLAN - CUSTOMER MANAGEMENT LOGISTICS

For retail marijuana dispensaries it is essential for a well thought out opening plan developed in consultation with local public safety officials. Elements of the plan include:

- **Additional Staff:** There will be additional security/concierge specifically focused on managing the customers, both internally and on the street along Broadway. These additional staff members will serve as concierge and will not replace the required security and check-in personnel, as required by the Massachusetts Cannabis Control Commission (CCC) regulations.

- **Appointment Only:** For the first month of operation, the Project proponent will require sales be by appointment only to reduce any peak traffic issues. During the initial 6 to 12 months of operation there will be additional staff to monitor lines as concierge/security to maintain order in the public way.

- **Coordinate with Arlington Police:** In advance of its opening day the Project proponent will coordinate with the Arlignton Police to arrange for the appropriate detail, discuss any proposed logistics for customer management and share any industry information the police may find useful.

CONCLUSIONS

The proposed Project will result in a measurable impact but will not have a significant impact on overall operations. With the implementation of the above recommendations, safe and efficient access will be provided to the planned development and the proposed development can be constructed with minimal impact to the area as designed.

INTRODUCTION

Vanasse & Associates, Inc. (VAI) has prepared this Transportation Impact Assessment (TIA) in order to evaluate the potential traffic impacts associated with the proposed marijuana dispensary to be located at 21 Broadway, in Arlington, Massachusetts (the "Project"). This study evaluates the following specific areas as they relate to the Project: i) access requirements; ii) potential off-site improvements; and iii) safety considerations; and identifies and analyzes existing and future traffic conditions, both with and without the Project.

PROJECT DESCRIPTION

The development entails the construction of a 3,000± square foot (sf) marijuana dispensary to be located at 21 Broadway in Arlington, Massachusetts. The Project site encompasses approximately 11,000± sf of land that is bounded by commercial properties to the north and west, Sunnyside Avenue to the east, and Broadway to the south. The Project site currently contains 7,600± sf of office space and a vacant 3,000± sf bank which will be renovated to accommodate the Project. The remaining office space will remain unaltered. The existing site provides a total of approximately 16 parking spaces, of which 12 spaces are allocated for the dispenasry. Access to the Project will continue to be served by way of one (1) entrance-only driveway along Broadway and one (1) exit-only driveway onto Sunnyside Avenue.

STUDY METHODOLOGY

This study was prepared in consultation with the Town of Arlington and City of Somerville officials and in accordance with the Massachusetts Department of Transportation (MassDOT) Guidelines for *Transportation Impact Assessment (TIA) Guideline;* and the standards of the Traffic Engineering and Transportation Planning professions for the preparation of such reports; and was conducted in three distinct stages.

The first stage involved an assessment of existing conditions in the study area and included an inventory of roadway geometrics; pedestrian facilities; observations of traffic flow; review of safety characteristics along area roadways and collection of peak period traffic counts.

In the second stage of the study, future traffic conditions were projected and analyzed. Specific travel demand forecasts for the Project were assessed along with future traffic demands due to expected traffic growth independent of the Project. A seven-year time horizon was selected for analyses consistent with state guidelines for the preparation of TIAs. The traffic analysis conducted in stage two identifies existing or projected future roadway capacity, traffic safety, and site access issues.

The third stage of the study presents and evaluates measures to address traffic and safety issues, if any, identified in stage two of the study.

EXISTING CONDITIONS

A comprehensive field inventory of existing conditions within the study area was conducted in June 2020. The field investigation consisted of an inventory of existing roadway geometrics, pedestrian facilities, traffic volumes, and operating characteristics, as well as posted speed limits and land use information for the major roadways that provide access to the Project: Broadway and Sunnyside Avenue, as well as the intersections which are expected to accommodate the majority of Project-related traffic. The study area for the Project is listed below and graphically depicted in Figure 1.

1. Alewife Brook Parkway (Route 16) at Broadway
2. Broadway at Sunnyside Avenue
3. Broadway at the Project Site Driveway
4. Sunnyside Avenue at the Project Site Driveway

The following describes the study area roadways and intersections:

GEOMETRY

Roadways

Broadway

Broadway is an urban principal arterial under local jurisdiction. Broadway generally runs in an east-west direction and provides one travel lane in each direction. Within the study area, Broadway generally provides two 11 to 12-foot wide travel lanes separated by a double-yellow centerline with no marked shoulders and parking provided intermittently along both sides. Sidewalks are provided along both sides of Broadway within the study area, with illumination provided by way of streetlights mounted on wood poles. The posted speed limit along Broadway is 25 miles per hour (mph). Land use within the study area consists of the Saint Paul's Cemetery and residential and commercial properties.

Sunnyside Avenue

Sunnyside Avenue is a local access roadway under local jurisdiction. Sunnyside Avenue generally runs in a north-south direction and provides one travel lane in each direction. Within the study area, Sunnyside Avenue generally provides a 26± foot wide traveled-way with no marked centerline or shoulders provided and on-street parking permitted along both sides of the roadway. Sidewalks are provided along both sides of Sunnyside Avenue within the study area, with illumination provided by way of streetlights mounted on

Figure 1

Site Location Map

Vanasse & Associates inc

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wood poles. A posted speed limit is not provided along Sunnyside Avenue and, as such, the statutory speed limit is 25 mph. Land use within the study area consists of residential and commercial properties.

Intersections

Figure 2 summarizes existing lane use and travel lane widths at the study area intersections as observed in June 2020.

EXISTING TRAFFIC VOLUMES

In order to determine existing traffic-volume demands and flow patterns within the study area, manual turning movement counts (TMCs) and vehicle classification counts were conducted on Thursday, June 11, 2020, during the weekday evening (4:00-6:00 PM) and on Saturday, June 13, 2020, during the Saturday midday (11:00 AM-2:00 PM) peak periods at the Broadway at Sunnyside Avenue intersection. In order to account for the reduction in traffic volumes caused by the travel restrictions enacted due to COVID-19, TMCs conducted at the Route 16 at Broadway intersection conducted on Tuesday, October 16, 2016, during the weekday evening peak periods were researched and seasonally adjusted and increased to represent theoretical average-month 2020 traffic volumes. Based on this comparison, the TMCs conducted in June 2020 were found to be approximately 48.8% lower than anticipated. The June 2020 counts were increased by a factor of 2.05 to provide a conservative estimate of roadway operating conditions. Historic Saturday midday peak period TMCs were not available at the Route 16 at Broadway intersection.

Additionally, traffic volumes for full occupancy of the existing office use were generated using information available from the Institute of Transportation Engineers (ITE)[5] for the appropriate land use and were assigned onto the study area roadway network based on the existing traffic patterns within the study area. The 2020 Existing weekday evening and Saturday midday peak-hour traffic volumes are graphically depicted on Figure 3.

A review of the peak-period traffic counts indicates that the weekday evening peak hour generally occurs between 4:30 and 5:30 PM with the Saturday midday peak hour generally occurring between 12:45 and 1:45 PM.

PEDESTRIAN AND BICYCLE FACILITIES

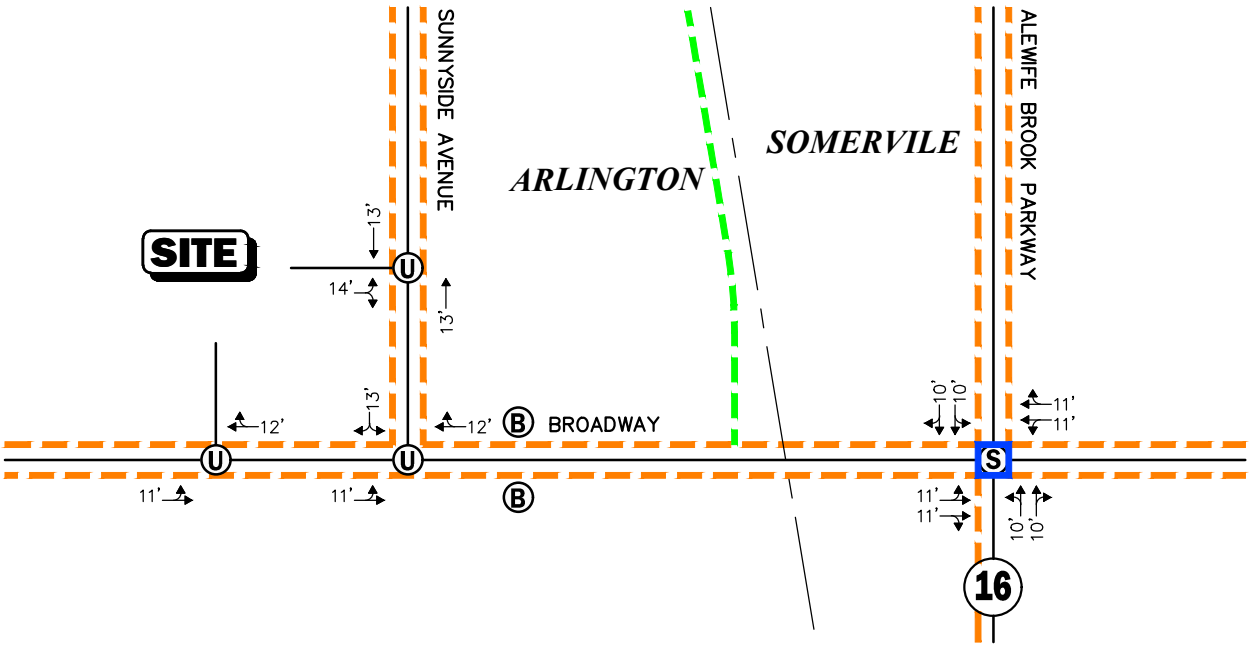
A comprehensive field inventory of pedestrian and bicycle facilities within the study area was undertaken in June 2020. The field inventory consisted of a review of the location of sidewalks and pedestrian crossing locations along the study area roadways and at the study area intersections. As detailed on Figure 2, sidewalks exist on one or both sides of all study area roadways. Within the study area, painted crosswalks are provided at the Route 16 at Broadway intersection.

The Alewife Greenway Bike Path traverses the study area in a general north-south direction adjacent to the Project site to the east. This trail provides a connection to the Mystic Valley Parkway to the north and the Minuteman Bikeway to the south.

[5] *Ibid 1*

Legend:

- Ⓢ Signalized Intersection
- Ⓤ Unsignalized Intersection
- Ⓑ Bus Stop
- Sidewalk
- Crosswalk
- Shared-Use Path
- XX' Lane Use and Travel Lane Width



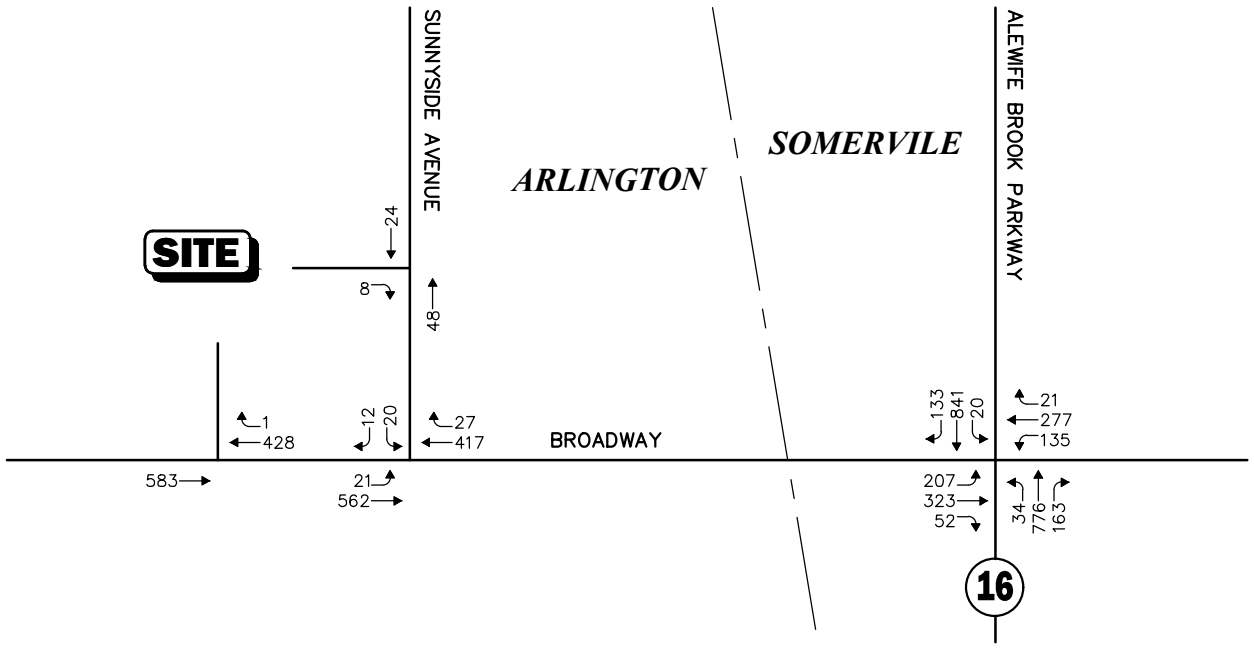
Not To Scale

Figure 2

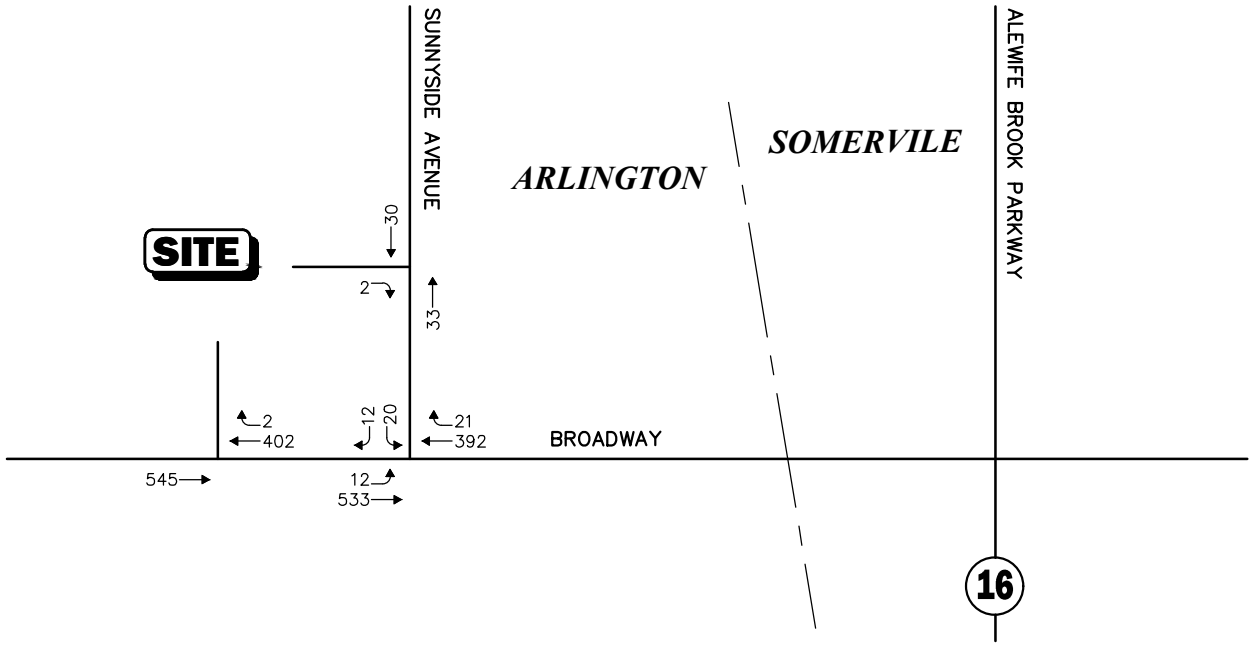
Existing Intersection Lane Use, Travel Lane Width and Pedestrian Facilities

Vanasse & Associates inc

WEEKDAY EVENING PEAK HOUR (4:30 - 5:30 PM)



SATURDAY MIDDAY PEAK HOUR (12:00 - 1:00 PM)



Not To Scale

Figure 3

2020 Existing
Peak Hour Traffic Volumes

Vanasse & Associates inc

PUBLIC TRANSPORTATION

Public transportation services are provided within the study area by the Massachusetts Bay Transit Authority (MBTA) for Bus service. Within the study area, the MBTA operates the following service:

- ***Route 87 – Clarendon Hill or Arlington Center - Lechmere Station*** – Route 87 stops at the Broadway at Sunnyside Avenue intersection, adjacent to the project site. Route 87 provides a connection to Arlington Center, Clarendon Hill, Teele Square, Davis Station (MBTA Subway Red Line), Union Square, and Lechmere Station (MBTA Subway Green Line). MBTA bus service operates Monday through Friday from approximately 5:07 AM to 1:40 AM, on Saturday from 5:15 AM to 1:35 AM, and on Sunday from 6:00 AM to 1:33 AM, with 30-minute-or-less headways on weekdays and Saturdays and 60-minute-or-less headways on Sundays. One-way fares for adults are $2.00 ($1.70 with a Charlie Card), a $0.85 fare for students with valid ID, and $0.85 fare for senior citizens (65 years of age or older) and persons with disabilities. All MBTA buses are handicapped and wheelchair accessible.

MOTOR VEHICLE CRASH DATA

Motor vehicle crash data was acquired from the Massachusetts Department of Transportation (MassDOT) Safety Management/Traffic Operations Unit for the most recent five-year period available (2013 through 2017) in order to examine motor vehicle crash trends occurring within the study area. The data is summarized by intersection, type, and severity, and is presented in Table 1.

Table 1
MOTOR VEHICLE CRASH DATA SUMMARY[a]

Scenario	Alewife Brook Parkway at Broadway (Signalized)	Main Street at Clarks Road (Unsignalized)
Year:		
2013	8	0
2014	7	2
2015	6	2
2016	16	0
2017	13	0
Total	50	4
Average[b]	10.00	0.80
Crash Rate[c]	0.83	0.19
Significant[d]	Yes	No
Type:		
Angle	31	1
Rear-End	7	1
Head-On	3	0
Sideswipe	5	1
Fixed Object	3	0
Pedestrian/Bicyclist	1	0
Unknown/Other	0	1
Total	50	4
Time of Day:		
Weekday (Monday through Friday)	32	3
Saturday	12	0
Sunday	6	1
Total	50	4
Lighting Conditions:		
Daylight	26	1
Dawn/Dusk	1	1
Dark (lit)	22	1
Dark (unlit)	1	0
Unknown	0	1
Total	50	4
Pavement Conditions		
Dry	42	2
Wet	5	0
Snow	1	0
Ice	2	0
Slush	0	1
Unknown(Other)	0	1
Total	50	4
Severity:		
Property Only	32	2
Injury Accident	17	1
Fatal Accident	0	0
Hit and Run	0	0
Not Reported (Other)	1	1
Total	50	4

[a]Source: MassDOT, 2013 through 2017.
[b]Average crashes over a five-year period.
[c]Crash rate per million entering vehicles (MEV).
[d]Signalized intersections are significant if the rate is >0.73 crashes per MEV. Unsignalized intersections are significant if the rate is >0.57 crashes per MEV.

As summarized in Table 1, the intersection of Route 16 at Broadway experienced the highest frequency of accidents over the five-year review period with a total of 50 accidents reported at the intersection, averaging 10.0 accidents per year. The majority of accidents involved property damage only (32 out of 50), occurred on dry pavement (42 out of 50), during daylight (26 out of 50), and involved angle type collisions (31 out of 50). The intersection of Route 16 at Broadway was found to have a motor vehicle crash rate above the MassDOT average for the District in which the Project is located (District 4). No fatalities were reported at any of the study area intersections over the five year period reviewed. In addition, the Highway Safety Improvement Program (HSIP) database was reviewed. The intersection of Route 16 at Broadway is listed as a HSIP cluster in the most recent (2015-2017) HSIP cluster listing. The Broadway at Sunnyside Avenue intersection is not listed as a HSIP location and has a crash rate below the MassDOT average.

FUTURE CONDITIONS

Traffic volumes in the study area were projected to the year 2027, which reflects a seven-year planning horizon consistent with State Traffic Study Guidelines. Independent of the Project, traffic volumes on the roadway network in the year 2027 under No-Build conditions include all existing traffic and new traffic resulting from background traffic growth. Anticipated Project-generated traffic volumes superimposed upon this 2027 No-Build traffic network reflect the 2027 Build conditions with the Project.

FUTURE TRAFFIC GROWTH

Future traffic growth is a function of the expected land development in the immediate area and the surrounding region. Several methods can be used to estimate this growth. A procedure frequently employed estimates an annual percentage increase in traffic growth and applies that percentage to all traffic volumes under study. The drawback to such a procedure is that some turning volumes may actually grow at either a higher or a lower rate at particular intersections.

An alternative procedure identifies the location and type of planned development, estimates the traffic to be generated, and assigns it to the area roadway network. This procedure produces a more realistic estimate of growth for local traffic. However, the drawback of this procedure is that the potential growth in population and development external to the study area would not be accounted for in the traffic projections.

To provide a conservative analysis framework, both procedures were used, the salient components of which are described below.

GENERAL BACKGROUND TRAFFIC GROWTH

Traffic-volume data compiled by MassDOT from permanent count stations and historic traffic counts in the area were reviewed in order to determine general background traffic growth trends. Based on this data, it was determined that traffic volumes within the study area have fluctuated over the past several years. In order to be consistent with previous traffic studies in the area, a 0.5 percent per year compounded annual background traffic growth rate was used in order to account for future traffic growth and presently unforeseen development within the study area.

SPECIFIC DEVELOPMENT BY OTHERS

The Planning Departments of the Town of Arlington and the City of Somerville were contacted in order to determine if there were any projects planned within the study area that would have an impact on future traffic volumes at the study intersections. Based on these discussions, the following projects were identified:

- ***Proposed Mixed-Use Development – 10 Sunnyside Avenue -*** This project entails the potential development of approximately 25 residential units and 10,000 sf of medical-dental offices. This project will be located at 10 Sunnyside Avenue in Arlington, Massachusetts. Traffic volumes associated with this project were obtained using trip-generation information available from the ITE. This is based upon information provided by the Town Planning Department and the actual program may be different.

- ***Proposed Residential Development – Clarendon Hill -*** This project entails the replacement of 216 existing residential units with 591 residential units. This project will be located at 34 North Street in Somerville, Massachusetts. The Site Generated volumes were obtained from the respective traffic study.

- ***Proposed Hotel – Broadway Hotel –*** This project entails the development of a 75-room hotel. This project will be located at 1154 Broadway in Somerville, Massachusetts. The Site Generated volumes were obtained from the respective traffic study.

As mentioned, the Project site formerly housed a 3,000 sf bank which is currently vacant. Traffic volumes associated with the reoccupation of the vacant 3,000 sf bank development have been generated using information available from the ITE[6] for the appropriate land use and were assigned onto the study area roadway network.

No other developments were identified at this time that are expected to result in an increase in traffic within the study area beyond the general background traffic growth rate.

ROADWAY IMPROVEMENT PROJECTS

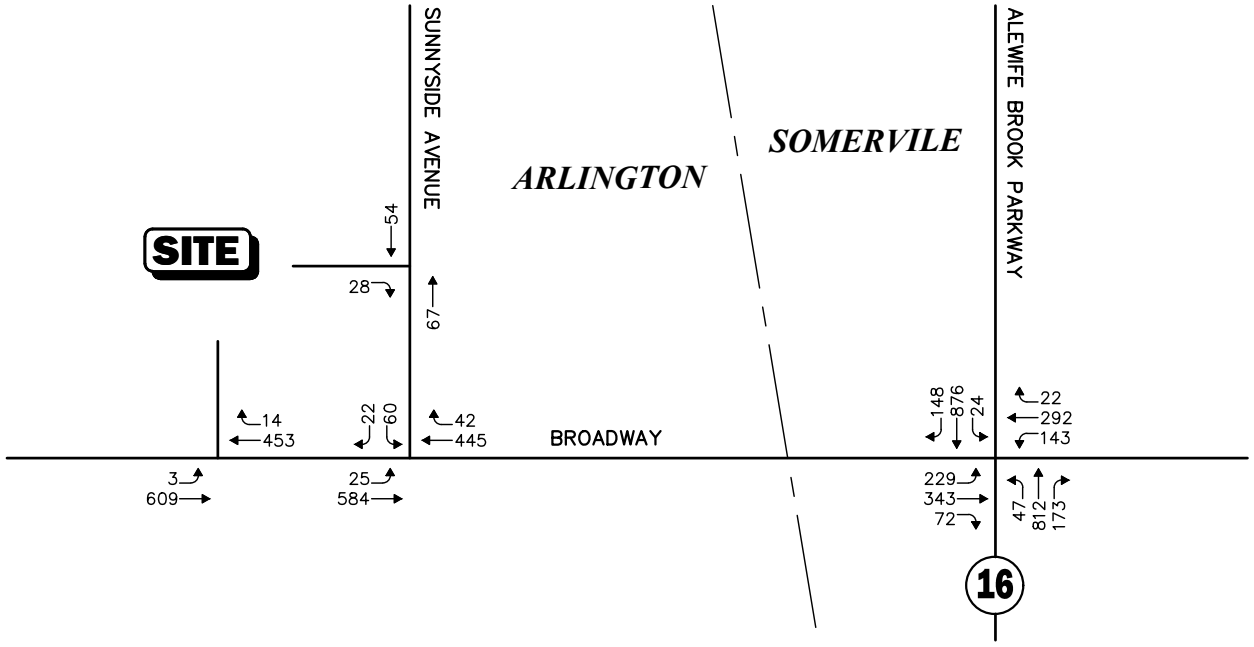
The Town of Arlington Engineering Department was contacted in order to determine if there were any planned roadway improvement projects expected to be completed within the study area. Based on these discussions, no improvements are planned beyond general maintenance.

NO-BUILD TRAFFIC VOLUMES

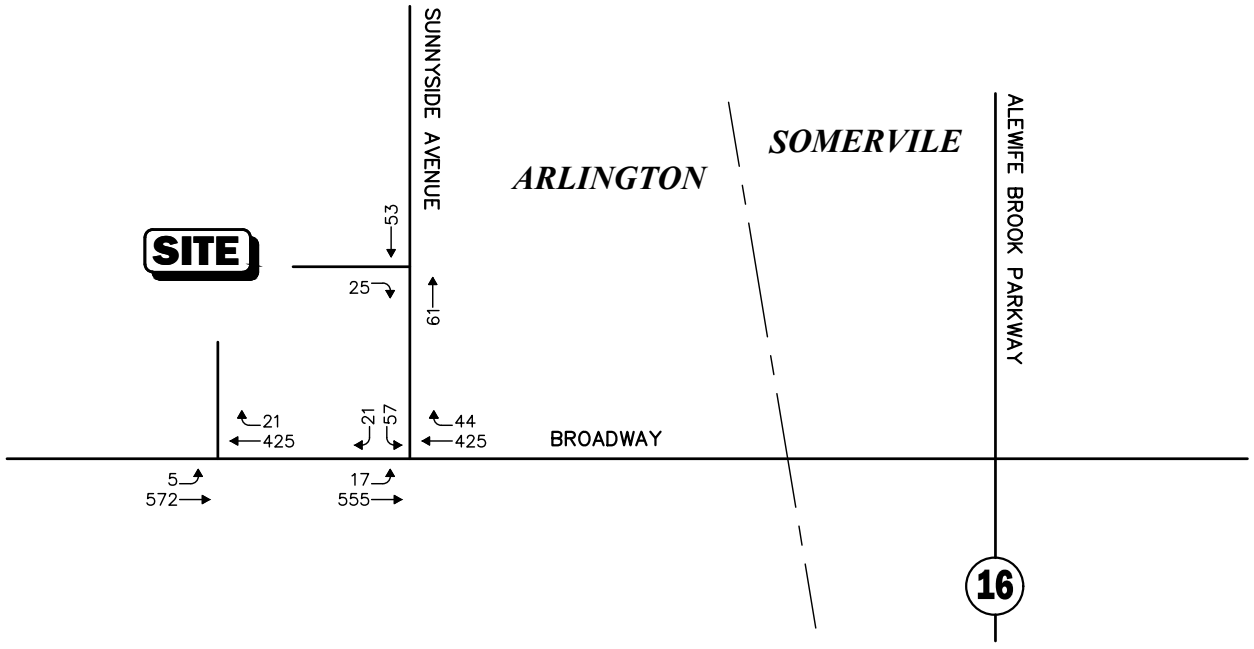
The 2027 No-Build peak-hour traffic-volume networks were developed by applying the 0.5 percent per year compounded annual background traffic growth rate to the 2020 Existing peak-hour traffic volumes and then adding the traffic volumes associated with the identified specific development projects by others. The resulting 2027 No-Build weekday evening and Saturday midday peak-hour traffic volume networks are shown on Figure 4.

[6] *Ibid 1*

WEEKDAY EVENING PEAK HOUR (4:30 - 5:30 PM)



SATURDAY MIDDAY PEAK HOUR (12:00 - 1:00 PM)



Not To Scale

Figure 4

2027 No Build
Peak Hour Traffic Volumes

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PROJECT-GENERATED TRAFFIC

The proposed project entails the construction of a 3,000 sf marijuana dispensary. In order to develop the traffic characteristics of the Project, trip-generation statistics published by the ITE[7] for a similar land use as that proposed were used. The ITE Land Use Code (LUC) *LUC 882, Marijuana Dispensary* was used to develop the traffic characteristics of the proposed Project.

Trip generation calculations were performed for a typical weekday, a typical Saturday, as well as the weekday evening and Saturday midday peak hours, the critical time periods for project-related traffic activity. A summary of the expected vehicle trip-generation is summarized in Table 2.

Table 2
TRIP GENERATION SUMMARY

Time Period/Direction	Proposed Marijuana Dispensary (3,000 sf)[a]
Average Weekday	760
Weekday Evening Peak Hour	
Entering	33
Exiting	33
Total	66
Average Saturday	778
Saturday Midday Peak Hour	
Entering	51
Exiting	58
Total	109

[a]Based on ITE LUC 221, Multifamily Housing (Mid-Rise)

As shown in Table 2, the proposed 3,000 sf marijuana dispensary will generate approximately 66 vehicle trips (33 entering and 33 exiting) during the weekday evening peak-hour and 109 vehicle trips (51 entering and 58 exiting) during the Saturday midday peak-hour. It should be noted that the typical opening traffic flow volumes can be higher for the first few months after opening.

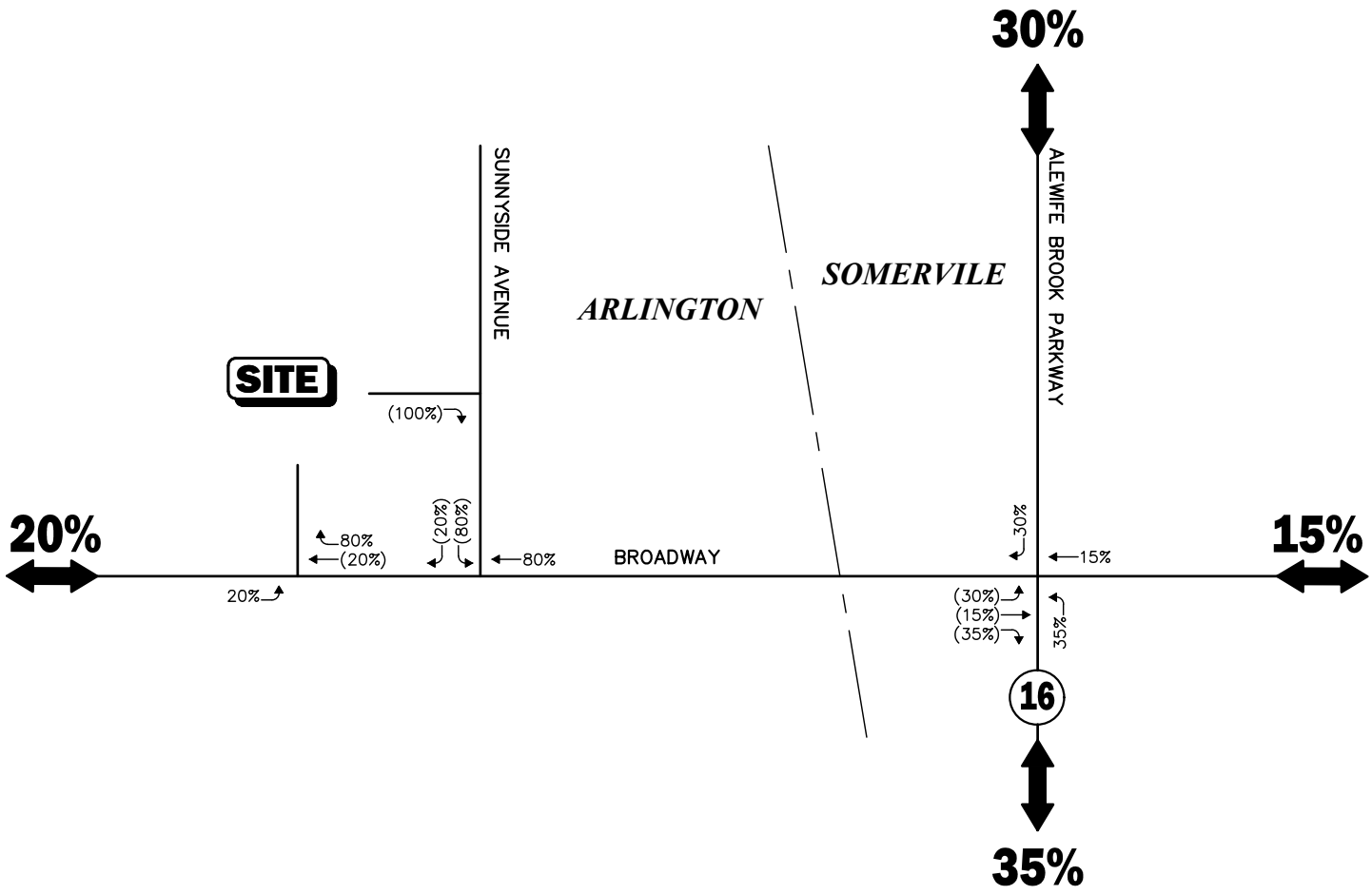
TRIP DISTRIBUTION AND ASSIGNMENT

The directional distribution of the site-generated trips to and from the proposed development were determined based on a review of existing travel patterns at the study area intersections. The general trip-distribution for the proposal is summarized in Table 3 and graphically depicted on Figure 5. The weekday evening and Saturday midday peak-hour traffic volumes expected to be generated by the marijuana dispensary were assigned on the study area roadway network as shown on Figure 6.

[7]*Ibid 1*

Legend:

XX	Entering Trips
(XX)	Exiting Trips



Not To Scale

Figure 5

Trip Distribution Map

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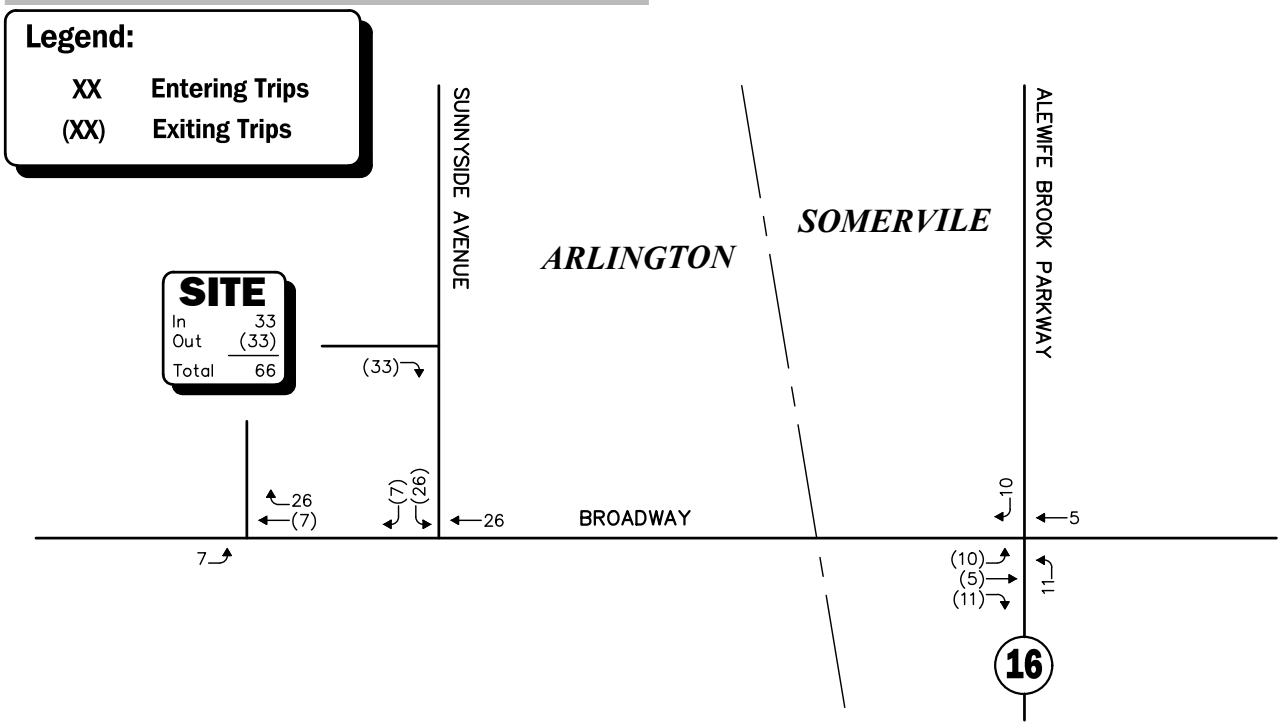
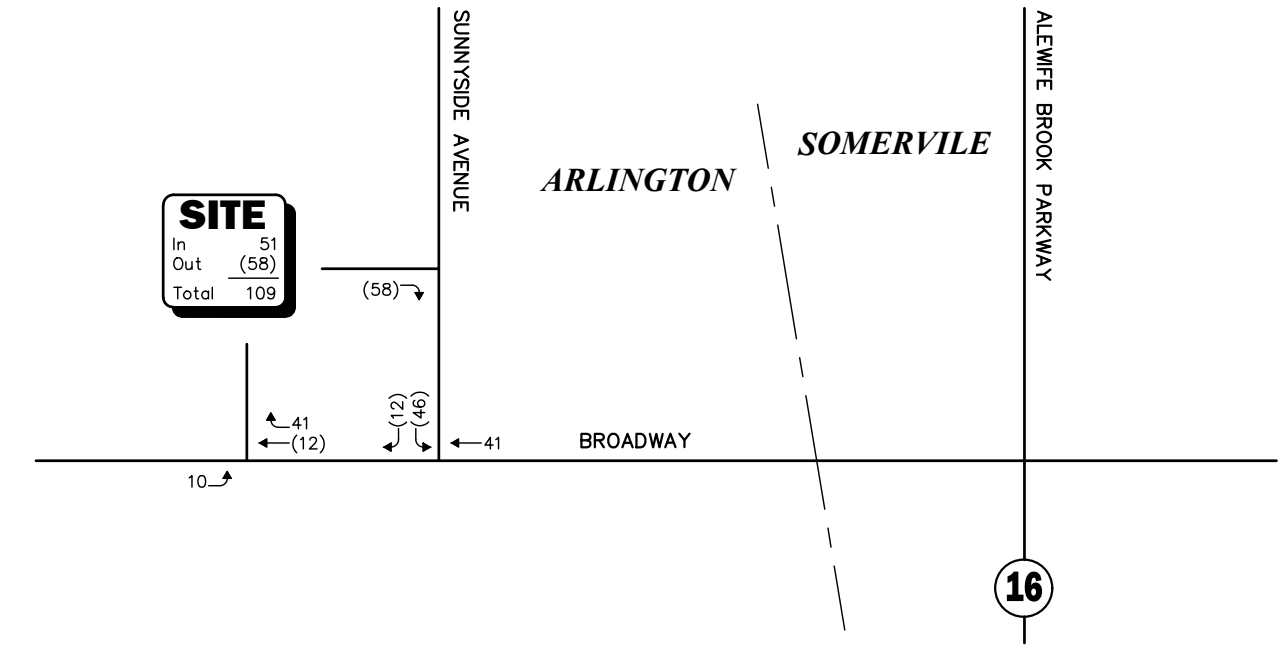
WEEKDAY EVENING PEAK HOUR (4:30 - 5:30 PM)



SATURDAY MIDDAY PEAK HOUR (12:00 - 1:00 PM)



Not To Scale

Figure 6

Project Generated Peak Hour Traffic Volumes

Vanasse & Associates inc

Table 3
TRIP-DISTRIBUTION SUMMARY

Roadway	Direction (To/From)	Percentage (To/From)
Broadway	East	15%
Broadway	West	20%
Alewife Brook Parkway	North	30%
Alewife Brook Parkway	South	35%
TOTAL		**100%**

FUTURE TRAFFIC VOLUMES - BUILD CONDITION

The 2027 Build condition networks consist of the 2027 No-Build traffic volumes, with the proposed 3,000 sf marijuana dispensary site-generated traffic replacing the potential 3,000 sf bank site-generated traffic. The 2027 Build weekday evening and Saturday midday peak-hour traffic volume networks are graphically depicted on Figure 7.

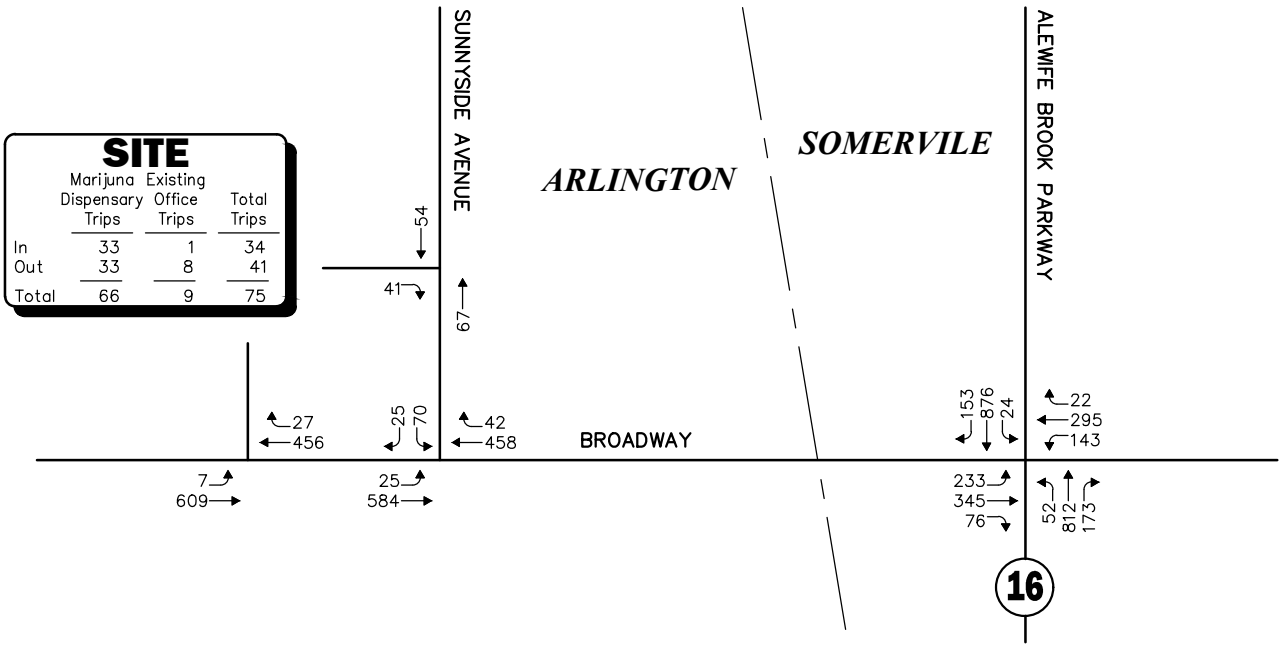
A summary of peak-hour projected traffic-volume increases external to the study area that is the subject of this assessment is shown in Table 4. These volumes are based on the expected increases from the Project.

Table 4
PEAK HOUR TRAFFIC-VOLUME INCREASES

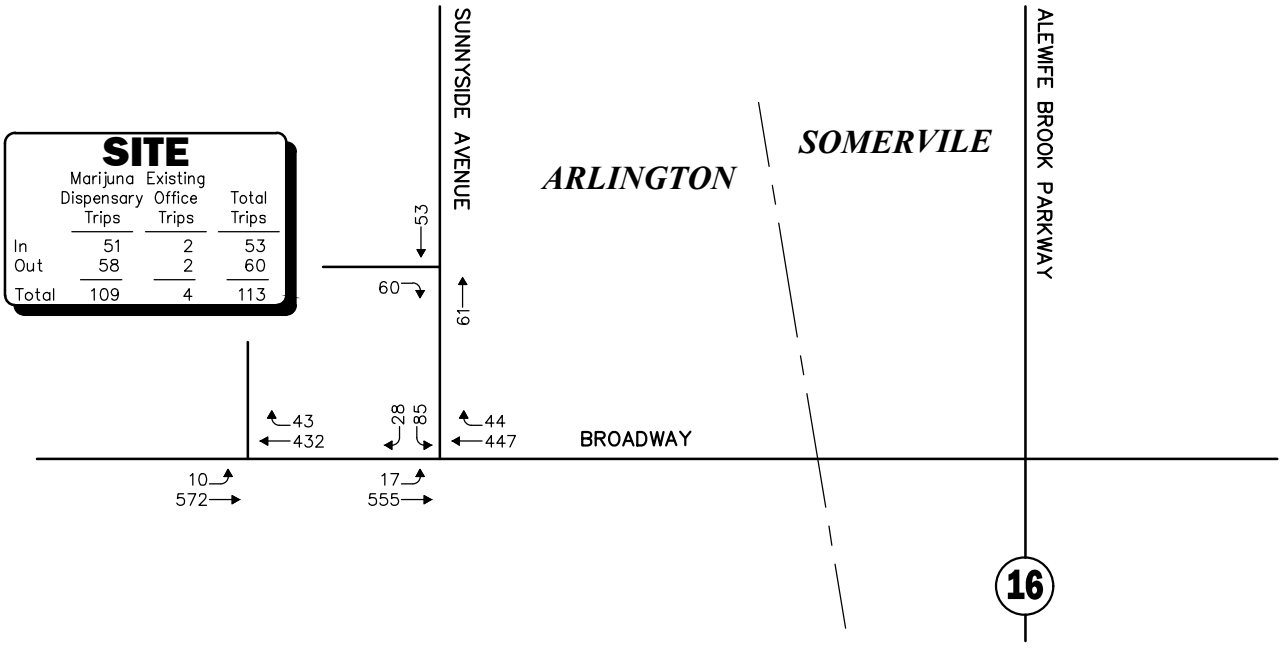
Location/Peak Hour	2027 No-Build	2027 Build	Traffic Volume Increase Over No-Build	Percent Increase Over No-Build
Broadway, east of Alewife Brook Parkway:				
Weekday Evening	997	1,002	5	0.5%
Broadway, east of Sunnyside Avenue:				
Saturday Midday	1,041	1,131	90	8.6%
Broadway, west of the Project Site Driveway:				
Weekday Evening	1,065	1,072	7	0.7%
Saturday Midday	1,002	1,014	12	1.2%
Alewife Brook Parkway, north of Broadway:				
Weekday Evening	2,111	2,120	9	0.4%
Alewife Brook Parkway, south of Broadway:				
Weekday Evening	2,123	2,132	9	0.4%

As shown in Table 4, in comparison to future No-Build conditions, project-related traffic increases are projected to range between 5 to 9 vehicles during the weekday evening peak-hour, with traffic percent increases ranging from 0.4 percent to 0.7 percent; and are anticipated to be 1.2 percent or less during the Saturday midday peak-hour.

WEEKDAY EVENING PEAK HOUR (4:30 - 5:30 PM)



SATURDAY MIDDAY PEAK HOUR (12:00 - 1:00 PM)



Not To Scale

Figure 7

2027 Build
Peak Hour Traffic Volumes

Vanasse & Associates inc

SIGHT DISTANCE EVALUATION

Sight distance measurements were performed at the Project site driveway intersection with Sunnyside Avenue in accordance with American Association of State Highway and Transportation Officials (AASHTO)[8] requirements. In brief, Stopping Sight Distance (SSD) is the distance required by a vehicle traveling at the design speed of a roadway, on wet pavement, to stop prior to striking an object in its travel path. In accordance with AASHTO and MassDOT standards, at a minimum, sufficient stopping sight distances must be provided at an intersection. Table 5 presents the measured sight distances at the site driveway.

Table 5
SIGHT DISTANCE MEASUREMENTS[a]

	Required Minimum (Feet)[a]			
Intersection/Sight Distance Measurement	25 MPH	30 MPH	35 MPH	Measured
Sunnyside Avenue at the Project Site Driveway				
Looking to the north from the Project Site Driveway	155	200	250	500+
Looking to the south from the Project Site Driveway	155	200	250	110[b]

[a]Recommended minimum values obtained from *A Policy on Geometric Design of Highways and Streets,* 7th Edition; American Association of State Highway and Transportation Officials (AASHTO); 2018.
[b]Clear line of sight provided to Broadway.

As can be seen in Table 5, the available lines of sight for motorists exiting onto Sunnyside Avenue in both directions exceed the recommended minimum sight distance to function in a safe manner based on the appropriate approach speeds.

[8] *A Policy on Geometric Design of Highway and Streets,* 7th Edition; American Association of State Highway and Transportation Officials (AASHTO); Washington D.C.; 2018.

TRAFFIC OPERATIONS ANALYSIS

Measuring existing and future traffic volumes quantifies traffic flow within the study area. To assess quality of flow, roadway capacity, and vehicle queue analyses were conducted under Existing, No-Build, and Build traffic volume conditions. Capacity analyses provide an indication of how well the roadway facilities serve the traffic demands placed upon them, with vehicle queue analyses providing a secondary measure of the operational characteristics of an intersection or section of roadway under study.

METHODOLOGY

Levels of Service

A primary result of capacity analyses is the assignment of level-of-service to traffic facilities under various traffic-flow conditions.[9] The concept of level-of-service is defined as a qualitative measure describing operational conditions within a traffic stream and their perception by motorists and/or passengers. A level-of-service definition provides an index to quality of traffic flow in terms of such factors as speed, travel time, freedom to maneuver, traffic interruptions, comfort, convenience, and safety.

Six levels of service are defined for each type of facility. They are given letter designations from A to F, with level-of-service (LOS) A representing the best-operating conditions and LOS F representing congested or constrained operating conditions.

Since the level-of-service of a traffic facility is a function of the traffic flows placed upon it, such a facility may operate at a wide range of levels of service, depending on the time of day, day of week, or period of year.

[9]The capacity analysis methodology is based on the concepts and procedures presented in the *Highway Capacity Manual;* Transportation Research Board; Washington, DC; 2010.

Signalized Intersections

The six levels of service for signalized intersections may be described as follows:

- *LOS A* describes operations with very low control delay; most vehicles do not stop at all.
- *LOS B* describes operations with relatively low control delay. However, more vehicles stop than LOS A.
- *LOS C* describes operations with higher control delays. Individual cycle failures may begin to appear. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.
- *LOS D* describes operations with control delay in the range where the influence of congestion becomes more noticeable. Many vehicles stop, and individual cycle failures are noticeable.
- *LOS E* describes operations with high control delay values. Individual cycle failures are frequent occurrences.
- *LOS F* describes operations with high control delay values that often occur with over-saturation. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.

Levels of service for signalized intersections were calculated using the Percentile Delay Method implemented as a part of the Synchro™ 10 software as required by MassDOT. The Percentile Delay Method assesses the effects of signal type, timing, phasing, and progression; vehicle mix; and geometrics on "percentile" delay. Level-of-service designations are based on the criterion of percentile delay per vehicle and is a measure of: i) driver discomfort; ii) motorist frustration; and iii) fuel consumption; and includes a uniform delay based on percentile volumes using a Poisson arrival pattern, an initial queue move-up time, and a queue interaction delay that accounts for delays resulting from queues extending from adjacent intersections. Table 6 summarizes the relationship between level-of-service and percentile delay and uses the same numerical delay thresholds as the HCM method. The tabulated percentile delay criterion may be applied in assigning level-of-service designations to individual lane groups, to individual intersection approaches, or to entire intersections.

Table 6
LEVEL-OF-SERVICE CRITERIA
FOR SIGNALIZED INTERSECTIONS

Level of Service	Percentile Delay Per Vehicle (Seconds)
A	≤10.0
B	10.1 to 20.0
C	20.1 to 35.0
D	35.1 to 55.0
E	55.1 to 80.0
F	>80.0

Unsignalized Intersections

The six levels of service for unsignalized intersections may be described as follows:

- *LOS A* represents a condition with little or no control delay to minor street traffic.
- *LOS B* represents a condition with short control delays to minor street traffic.
- *LOS C* represents a condition with average control delays to minor street traffic.
- *LOS D* represents a condition with long control delays to minor street traffic.
- *LOS E* represents operating conditions at or near capacity level, with very long control delays to minor street traffic.
- *LOS F* represents a condition where minor street demand volume exceeds the capacity of an approach lane, with extreme control delays resulting.

The levels of service of unsignalized intersections are determined by the application of a procedure described in the 2010 *Highway Capacity Manual.*[10] Level of service is measured in terms of average control delay. Mathematically, control delay is a function of the capacity and degree of saturation of the lane group and/or approach under study and is a quantification of motorist delay associated with traffic control devices such as traffic signals and STOP signs. Control delay includes the effects of initial deceleration delay approaching a STOP sign, stopped delay, queue move-up time, and final acceleration delay from a stopped condition. Definitions for level of service at unsignalized intersections are also given in the 2010 *Highway Capacity Manual*. Table 7 summarizes the relationship between level of service and average control delay for two-way stop-controlled and all-way stop-controlled intersections.

Table 7
LEVEL-OF-SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS[a]

Level-of-Service by Volume-to-Capacity Ratio		Average Control Delay (Seconds Per Vehicle)
v/c ≤ 1.0	v/c > 1.0	
A	F	≤10.0
B	F	10.1 to 15.0
C	F	15.1 to 25.0
D	F	25.1 to 35.0
E	F	35.1 to 50.0
F	F	>50.0

[a]Source: *Highway Capacity Manual*; Transportation Research Board; Washington, DC; 2010; page 19-2.

[10]*Highway Capacity Manual*; Transportation Research Board; Washington, DC; 2010.

ANALYSIS RESULTS

Level-of-service and vehicle queue analyses were conducted for 2020 Existing, 2027 No-Build and 2027 Build conditions for the intersections within the study area. The results of the intersection capacity and vehicle queue analyses are summarized for the signalized intersection in Table 8 and for the unsignalized intersections in Table 9 with the detailed analysis results presented in the Appendix. The following is a summary of the level-of-service and delay analyses for the intersections within the study area:

Signalized Intersections

Route 16 at Broadway

Under all conditions, this signalized intersection will operate at an overall LOS F during weekday evening peak hour. The project impact on queues and delays are projected to be minimal.

Unsignalized Intersections

Broadway at Sunnyside Avenue

Under 2020 Existing conditions, the critical movements at this unsignalized intersection operate at LOS C during the weekday evening and Saturday midday peak hours. Under 2027 No-Build conditions, the critical movements are expected to operate at LOS D during the weekday evening and Saturday midday peak hours. Under 2027 Build conditions, the critical movements are expected to degrade to LOS E during the weekday evening peak-hour and to remain at LOS D during the Saturday midday peak-hour. Vehicle queues at this intersection were shown to range from 0 to 3 vehicles during the peak periods.

Broadway at the Project Site Driveway

Under all conditions, the critical movements at this intersection are expected to operate at LOS A with negligible vehicle queuing during the weekday evening and Saturday midday peak hours.

Sunnyside Avenue at the Project Site Driveway

Under all conditions, the critical movements at this intersection are expected to operate at LOS A with negligible vehicle queuing during the weekday evening and Saturday midday peak hours.

Table 8
SIGNALIZED INTERSECTION LEVEL-OF-SERVICE SUMMARY

Signalized Intersection/Peak Hour	2020 Existing				2027 No-Build				2027 Build			
	V/C[a]	Delay[b]	LOS[c]	Queue[d] Avg/95th	V/C	Delay	LOS	Queue Avg/95th	V/C	Delay	LOS	Queue Avg/95th
Route 16 at Broadway												
Weekday Evening:												
Broadway EB LT	4.46	>80.0	F	386/495	4.93	>80.0	F	431/544	5.02	>80.0	F	440/553
Broadway EB TH RT	1.20	>80.0	F	458/626	1.33	>80.0	F	543/713	1.35	>80.0	F	554/726
Broadway WB LT TH RT	1.11	>80.0	F	235/348	1.19	>80.0	F	262/377	1.20	>80.0	F	265/381
Route 16 NB LT TH RT	1.11	>80.0	F	523/661	1.33	>80.0	F	634/773	1.37	>80.0	F	650/788
Route 16 SB LT TH RT	1.02	73.7	E	521/660	1.15	>80.0	F	610/750	1.16	>80.0	F	616/756
Overall	**--**	**>80.0**	**F**	**--**	**--**	**>80.0**	**F**	**--**	**--**	**>80.0**	**F**	**--**

[a]Volume-to-capacity ratio.
[b]Control (signal) delay per vehicle in seconds.
[c]Level-of-Service.
[d]Queue length in feet.
NB = northbound; SB = southbound; EB = eastbound; WB = westbound; LT = left-turning movements; TH = through movements; RT = right-turning movements.

Table 9
UNSIGNALIZED INTERSECTION LEVEL-OF-SERVICE AND VEHICLE QUEUE SUMMARY

Unsignalized Intersection/ Peak Hour/Movement	2020 Existing				2027 No-Build				2027 Build			
	Demand[a]	Delay[b]	LOS[c]	Queue 95th Percentile	Demand	Delay	LOS	Queue 95th Percentile	Demand	Delay	LOS	Queue 95th Percentile
Broadway at Sunnyside Avenue												
Weekday Evening:												
Broadway EB LT TH	583	0.3	A	0	609	0.4	A	0	609	0.4	A	0
Broadway WB TH RT	444	0.0	A	0	487	0.0	A	0	500	0.0	A	0
Sunnyside Ave SB LT RT	32	20.6	C	1	82	31.1	D	2	95	35.1	E	3
Saturday Midday:												
Broadway EB LT TH	545	0.2	A	0	572	0.3	A	0	572	0.3	A	0
Broadway WB TH RT	413	0.0	A	0	469	0.0	A	0	491	0.0	A	0
Sunnyside Ave SB LT RT	32	19.0	C	1	78	26.4	D	2	113	34.7	D	3
Broadway at the Project Site Driveway												
Weekday Evening:												
Broadway EB LT TH	583	0.0	A	0	612	0.0	A	0	616	0.1	A	0
Broadway WB TH RT	429	0.0	A	0	467	0.0	A	0	483	0.0	A	0
Saturday Midday:												
Broadway EB LT TH	545	0.0	A	0	577	0.1	A	0	582	0.1	A	0
Broadway WB TH RT	404	0.0	A	0	446	0.0	A	0	475	0.0	A	0
Sunnyside Avenue at the Project Site Driveway												
Weekday Evening:												
Project Site Driveway EB LT RT	8	8.5	A	0	28	8.7	A	0	41	8.7	A	0
Sunnyside Avenue NB TH	48	0.0	A	0	67	0.0	A	0	67	0.0	A	0
Sunnyside Avenue SB TH	24	0.0	A	0	54	0.0	A	0	54	0.0	A	0
Saturday Midday:												
Project Site Driveway EB LT RT	2	8.5	A	0	25	8.7	A	0	60	8.8	A	0
Sunnyside Avenue NB TH	33	0.0	A	0	61	0.0	A	0	61	0.0	A	0
Sunnyside Avenue SB TH	30	0.0	A	0	53	0.0	A	0	53	0.0	A	0

[a]Volume-to-capacity ratio.
[b]Control (signal) delay per vehicle in seconds.
[c]Level-of-Service.
[d]Queue length in vehicles.
NB = northbound; SB = southbound; EB = eastbound; WB = westbound; LT = left-turning movements; TH = through movements; RT = right-turning movements.

PARKING

In order to determine the availability of public parking in the vicinity of the Project site, a parking demand survey was performed on the on-street parking spaces along Broadway between the Somerville City Line and Cleveland Street. Based upon the field survey a total of approximately 62 parking spaces are available in the immediate vicinity of the site.

PARKING SUPPLY

On Street

On-street parking is provided along Broadway adjacent to the site and consists of approximately 62 spaces. The on-street parking is unmetered and designed for shorter stays and is restricted to one-hour parking only.

PARKING DEMAND OBSERVATION

In order to ascertain the availability of parking demand, a survey of on-street parking spaces adjacent to the site was completed on Saturday, June 2, 2020 between the hours of 11:00 AM and 5:00 PM. The parking demand observations were performed in 30-minute intervals and consisted of an inventory of vacant spaces available within each parking area during the observation periods. A summary of the vacant spaces is presented on Figure 8 and Table 10.

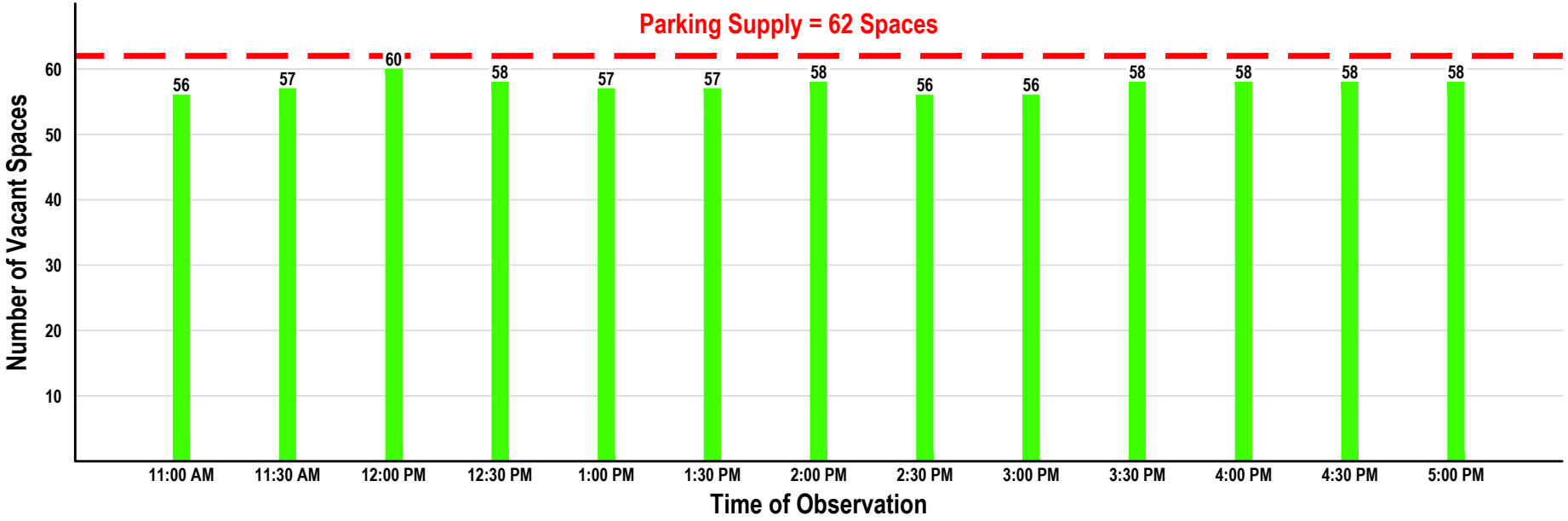


Figure 8

Parking Analysis
Saturday, June 6, 2020

Vanasse & Associates inc

Table 10
PARKING DEMAND OBSERVATIONS

Saturday Start Time	Vacant Space observation
11:00 AM	56
11:30 AM	57
12:00 PM	60
12:30 PM	58
1:00 PM	57
1:30 PM	57
2:00 PM	58
2:30 PM	56
3:00 PM	56
3:30 PM	58
4:00 PM	58
4:30 PM	58
5:00 PM	58
Parking Capacity	**62**

[a]Based on counts conducted by VAI, Saturday, June 6, 2020.

As can be seen in Table 10, the overall peak parking demand period in the vicinity of the project was found to occur between 2:30– 3:30 PM peak period with 56 available parking spaces. Based upon this data it can be concluded that there is sufficient availability of parking spaces in the area and there is additional parking available outside this immediate area. It is acknowledged that the parking survey was conducted during the COVID-19 impact period but overall it is our opinion that adequate area parking does exist.

CONCLUSIONS AND RECOMMENDATIONS

VAI has prepared this TIA in order to evaluate potential traffic impacts associated with the proposed marijuana dispensary located at 21 Broadway in Arlington, Massachusetts (the "Project"). This study was prepared in accordance with the Massachusetts Department of Transportation (MassDOT) Guidelines for *Transportation Impact Assessment (TIA) Guideline;* and was conducted pursuant to the standards of the Traffic Engineering and Transportation Planning Professions for the preparation of such reports. Based on the results of this study, the following can be concluded:

- Based on trip-generation statistics published by the ITE, the proposed marijuana dispensary will generate approximately 66 vehicle trips (33 entering and 33 exiting) during the weekday evening peak hour and 109 vehicle trips (51 entering and 58 exiting) during the Saturday midday peak hour.

- Project-related traffic increases in the area are expected to be between 0.4 percent to 0.7 percent during the weekday evening peak-hour.

- The analysis has indicated that the Project will result in minimal impact on motorist delays at the study intersections, as compared to future No-Build conditions.

In consideration of the above, we have concluded that the Project can be accommodated within the confines of the existing transportation infrastructure in a safe and efficient manner with the implementation of the following recommendations.

RECOMMENDATIONS

A transportation improvement program has been developed that is designed to provide safe and efficient access to the Project and address any deficiencies identified at off-site locations evaluated in conjunction with this study. The following improvements have been recommended as a part of this evaluation.

Project Access

Access to the Project will continue to be provided by way of one (1) entrance-only driveway along Broadway and one (1) exit-only driveway onto Sunnyside Avenue. The following recommendations are offered with respect to the design and operation of the Project site driveway:

- The exit driveway onto Sunnyside Avenue should be placed under STOP-sign (Manual of Uniform Traffic Control Designation R1-1) control, with a painted STOP-bar included. Do not enter signs should be installed facing Sunnyside Avenue.

- Pavement markings reinforcing the one-way operation of the Project driveway should be painted within the Project site.

- Illumination should be provided at the driveways.

- All signs and other pavement markings to be installed within the Development site shall conform to the applicable standards of the current Manual on Uniform Traffic Devices (MUTCD).[11]

- Signs and landscaping adjacent to the Project site driveway intersections should be designed and maintained so as not to restrict lines of sight.

Transportation Demand Management (TDM) Plan

As is the case with many developments, a major focus of the traffic mitigation plan focuses on the reduction of single-occupant vehicles arriving and departing to and from the site. This is predominantly accomplished by developing a comprehensive Transportation Demand Management (TDM) strategy. The proponent is committed to supporting a balanced multimodal transportation plan to serve the employees and patrons of the site. The major features of this TDM plan that support this commitment are as follows:

- ***Designation of a Transportation Coordinator -*** The transportation coordinator oversees all transportation issues including managing the TDM measures, parking, loading, and service. The marijuana dispensary will have a transportation coordinator.

- ***Provision of Transit Schedules*** - Links to the MBTA website will be included on the marijuana dispensary website. In addition, the project proponent will post information regarding public transportation services, maps, schedules, and fare information in a central location.

- ***Bicycling Resources -*** Secured bicycle spaces will be provided outside the building for patrons.

- ***Ride Share Accommodations*** – Accommodations will be provided to encourage the use of ride-sharing to facilitate drop-offs and pick-ups. Three (3) designated uber/lyft/taxi spaces will be provided directly in front of the site. In addition, drop-off and pick-up activity can circulate through the site from Broadway to Sunnyside Avenue.

The project proponent will investigate the implementation of these traffic reduction strategies and will work with the Town to implement such programs.

[11] *Ibid 4.*

Parking

A total of 16 parking spaces are provided on the site of which 12 spaces are allocated for the proposed marijuana dispensary. The on-street parking supply along Broadway between the Somerville City Line and Cleveland Street is 62 spaces, most of which are vacant. In order to enhance compliance where on-street parking regulations, the Project proponent will provide new signage updating and formalizing the existing on-street parking regulations along Broadway between the Somerville City Line and Cleveland Street. Specific area parking includes:

- Three (3) uber/lyft/taxi reserved spaces in front of the building.
- 52 regulated 1-hour spaces along Broadway between the Somerville City Line and Cleveland Street.

Overall, there is adequate parking in the artea to support the Project.

OPENING CONDITIONS OPERATIONS PLAN - CUSTOMER MANAGEMENT LOGISTICS

For retail marijuana dispensaries it is essential for a well thought out opening plan developed in consultation with local public safety officials. Elements of the plan include:

- **Additional Staff:** There will be additional security/concierge specifically focused on managing the customers, both internally and on the street along Broadway. These additional staff members will serve as concierge and will not replace the required security and check-in personnel, as required by the Massachusetts Cannabis Control Commission (CCC) regulations.
- **Appointment Only:** For the first month of operation, the Project proponent will require sales be by appointment only to reduce any peak traffic issues. During the initial 6 to 12 months of operation there will be additional staff to monitor lines as concierge/security to maintain order in the public way.
- **Coordinate with Arlington Police:** In advance of its opening day the Project proponent will coordinate with the Arlignton Police to arrange for the appropriate detail, discuss any proposed logistics for customer management and share any industry information the police may find useful.

CONCLUSIONS

The proposed Project will result in a measurable impact but will not have a significant impact on overall operations. With the implementation of the above recommendations, safe and efficient access will be provided to the planned development and the proposed development can be constructed with minimal impact to the area as designed.

APPENDIX

MANUAL TURNING MOVEMENT COUNT DATA
COVID-19 ADJUSTMENT CALCULATIONS
PUBLIC TRANSPORTATION SCHEDULES
MASSDOT CRASH RATE WORKSHEETS AND HIGH CRASH LOCATION MAPPING
GENERAL BACKGROUND TRAFFIC GROWTH
BACKGROUND DEVELOPMENT TRAFFIC-VOLUME NETWORKS
TRIP-GENERATION CALCULATIONS
CAPACITY ANALYSIS WORKSHEETS

MANUAL TURNING MOVEMENT COUNT DATA

Accurate Counts

978-664-2565

N/S Street : Alewife Brook Parkway
E/W Street: Broadway
City/State : Somerville, MA
Weather : Cloudy

File Name : 18610001
Site Code : 18610001
Start Date : 10/18/2016

Groups Printed- Cars - Trucks

	Alewife Brook Parkway From North			Broadway From East			Alewife Brook Parkway From South			Broadway From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
04:00 PM	3	187	28	36	57	8	8	224	45	40	56	13	705
04:15 PM	3	196	23	31	65	4	5	220	42	53	58	8	708
04:30 PM	7	206	26	28	52	8	6	172	32	53	76	13	679
04:45 PM	5	217	22	39	66	5	5	193	41	34	65	12	704
Total	18	806	99	134	240	25	24	809	160	180	255	46	2796
05:00 PM	7	188	40	30	68	7	11	190	36	42	71	16	706
05:15 PM	2	228	35	39	67	5	10	196	43	62	81	11	779
05:30 PM	6	191	33	24	71	4	6	182	40	51	79	6	693
05:45 PM	8	182	22	37	63	7	8	190	32	37	72	13	671
Total	23	789	130	130	269	23	35	758	151	192	303	46	2849
Grand Total	41	1595	229	264	509	48	59	1567	311	372	558	92	5645
Apprch %	2.2	85.5	12.3	32.2	62	5.8	3	80.9	16.1	36.4	54.6	9	
Total %	0.7	28.3	4.1	4.7	9	0.9	1	27.8	5.5	6.6	9.9	1.6	
Cars	41	1595	229	264	504	48	59	1567	311	372	550	92	5632
% Cars	100	100	100	100	99	100	100	100	100	100	98.6	100	99.8
Trucks	0	0	0	0	5	0	0	0	0	0	8	0	13
% Trucks	0	0	0	0	1	0	0	0	0	0	1.4	0	0.2

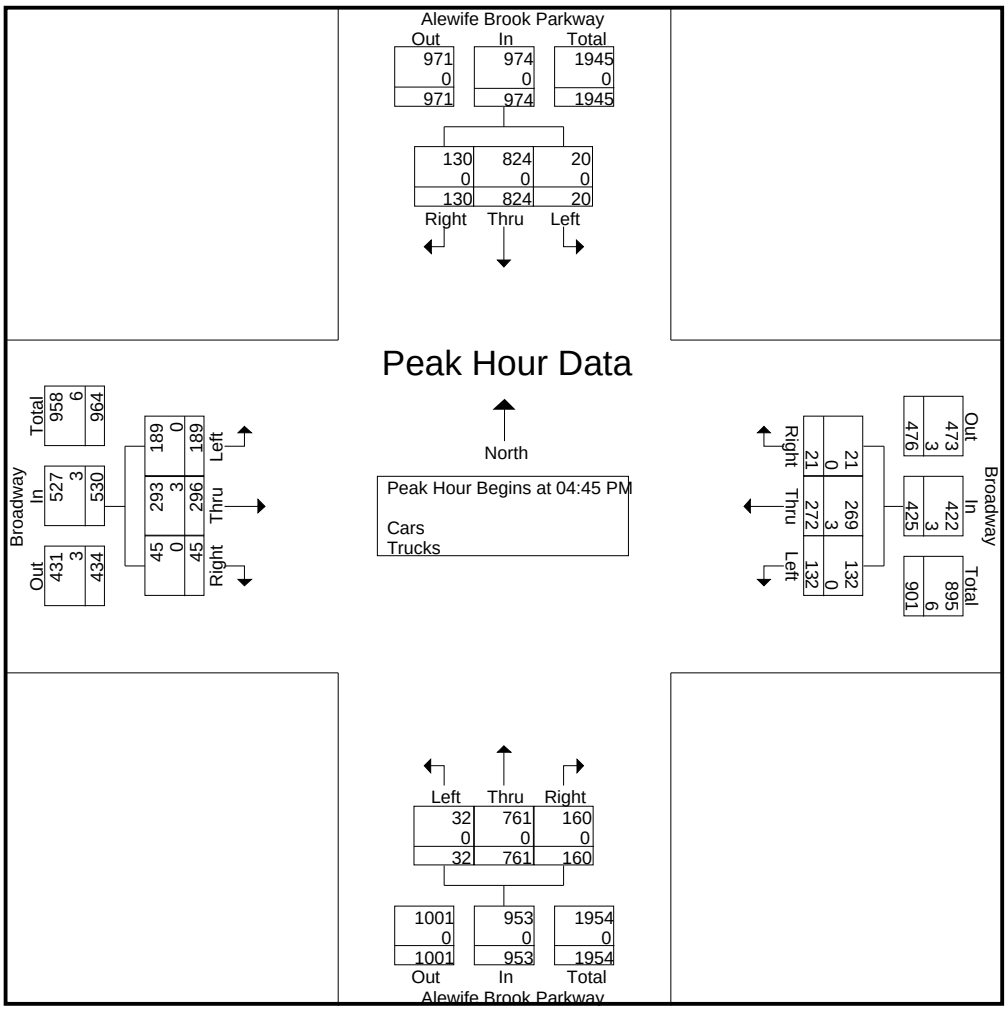
Accurate Counts

978-664-2565

N/S Street : Alewife Brook Parkway
E/W Street: Broadway
City/State : Somerville, MA
Weather : Cloudy

File Name : 18610001
Site Code : 18610001
Start Date : 10/18/2016
Page No : 2

	Alewife Brook Parkway From North				Broadway From East				Alewife Brook Parkway From South				Broadway From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	5	217	22	244	**39**	66	5	110	5	193	41	239	34	65	12	111	704
05:00 PM	**7**	188	**40**	235	30	68	**7**	105	**11**	190	36	237	42	71	**16**	129	706
05:15 PM	2	**228**	35	**265**	39	67	5	**111**	10	**196**	**43**	**249**	**62**	**81**	11	**154**	**779**
05:30 PM	6	191	33	230	24	**71**	4	99	6	182	40	228	51	79	6	136	693
Total Volume	20	824	130	974	132	272	21	425	32	761	160	953	189	296	45	530	2882
% App. Total	2.1	84.6	13.3		31.1	64	4.9		3.4	79.9	16.8		35.7	55.8	8.5		
PHF	.714	.904	.813	.919	.846	.958	.750	.957	.727	.971	.930	.957	.762	.914	.703	.860	.925
Cars	20	824	130	974	132	269	21	422	32	761	160	953	189	293	45	527	2876
% Cars	100	100	100	100	100	98.9	100	99.3	100	100	100	100	100	99.0	100	99.4	99.8
Trucks	0	0	0	0	0	3	0	3	0	0	0	0	0	3	0	3	6
% Trucks	0	0	0	0	0	1.1	0	0.7	0	0	0	0	0	1.0	0	0.6	0.2



Accurate Counts

978-664-2565

N/S Street : Alewife Brook Parkway
E/W Street: Broadway
City/State : Somerville, MA
Weather : Cloudy

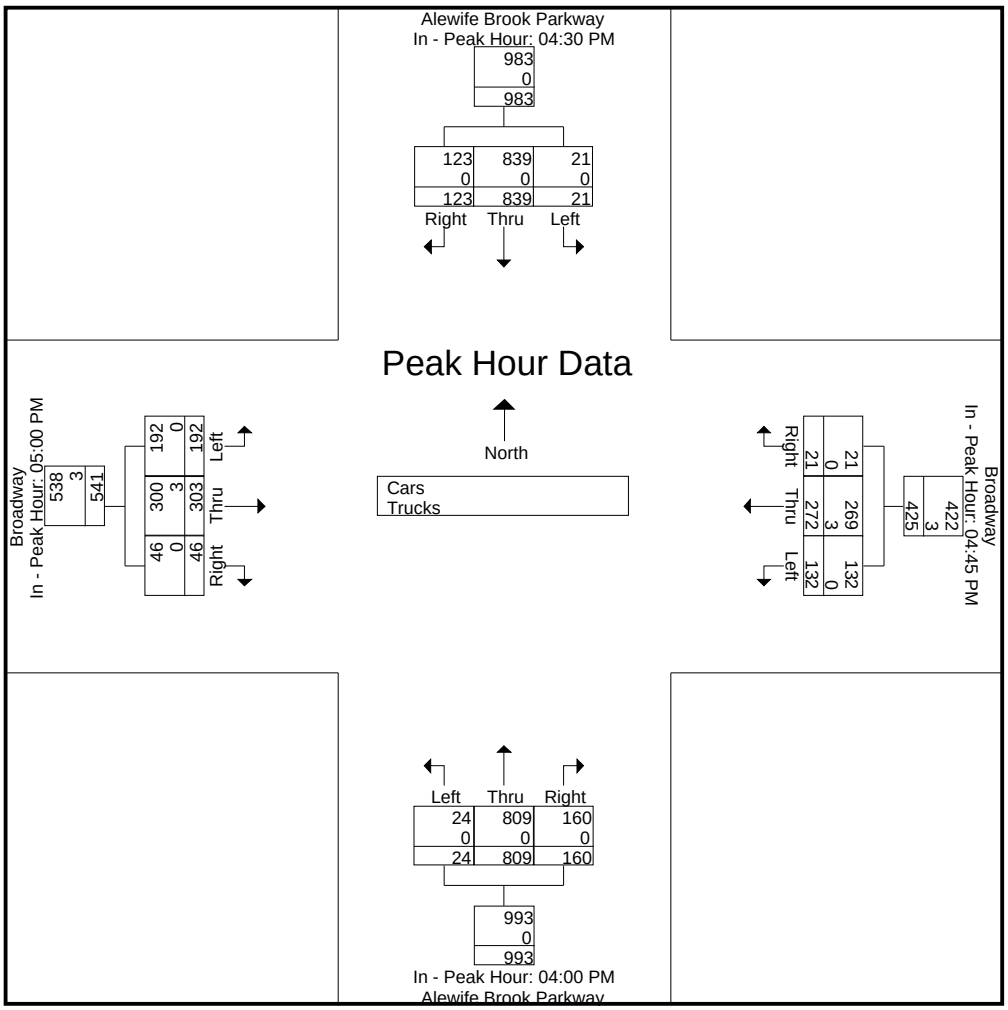
File Name : 18610001
Site Code : 18610001
Start Date : 10/18/2016

	Alewife Brook Parkway From North				Broadway From East				Alewife Brook Parkway From South				Broadway From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:30 PM				04:45 PM				04:00 PM				05:00 PM			
+0 mins.	**7**	206	26	239	**39**	66	5	110	**8**	**224**	**45**	**277**	42	71	**16**	129
+15 mins.	5	217	22	244	30	68	**7**	105	5	220	42	267	**62**	**81**	11	**154**
+30 mins.	7	188	**40**	235	39	67	5	**111**	6	172	32	210	51	79	6	136
+45 mins.	2	**228**	35	**265**	24	**71**	4	99	5	193	41	239	37	72	13	122
Total Volume	21	839	123	983	132	272	21	425	24	809	160	993	192	303	46	541
% App. Total	2.1	85.4	12.5		31.1	64	4.9		2.4	81.5	16.1		35.5	56	8.5	
PHF	.750	.920	.769	.927	.846	.958	.750	.957	.750	.903	.889	.896	.774	.935	.719	.878
Cars	21	839	123	983	132	269	21	422	24	809	160	993	192	300	46	538
% Cars	100	100	100	100	100	98.9	100	99.3	100	100	100	100	100	99	100	99.4
Trucks	0	0	0	0	0	3	0	3	0	0	0	0	0	3	0	3
% Trucks	0	0	0	0	0	1.1	0	0.7	0	0	0	0	0	1	0	0.6



Accurate Counts

978-664-2565

N/S Street : Alewife Brook Parkway
E/W Street: Broadway
City/State : Somerville, MA
Weather : Cloudy

File Name : 18610001
Site Code : 18610001
Start Date : 10/18/2016

Groups Printed- Cars

	Alewife Brook Parkway From North			Broadway From East			Alewife Brook Parkway From South			Broadway From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
04:00 PM	3	187	28	36	56	8	8	224	45	40	53	13	701
04:15 PM	3	196	23	31	65	4	5	220	42	53	57	8	707
04:30 PM	7	206	26	28	51	8	6	172	32	53	76	13	678
04:45 PM	5	217	22	39	66	5	5	193	41	34	64	12	703
Total	18	806	99	134	238	25	24	809	160	180	250	46	2789
05:00 PM	7	188	40	30	67	7	11	190	36	42	70	16	704
05:15 PM	2	228	35	39	66	5	10	196	43	62	80	11	777
05:30 PM	6	191	33	24	70	4	6	182	40	51	79	6	692
05:45 PM	8	182	22	37	63	7	8	190	32	37	71	13	670
Total	23	789	130	130	266	23	35	758	151	192	300	46	2843
Grand Total	41	1595	229	264	504	48	59	1567	311	372	550	92	5632
Apprch %	2.2	85.5	12.3	32.4	61.8	5.9	3	80.9	16.1	36.7	54.2	9.1	
Total %	0.7	28.3	4.1	4.7	8.9	0.9	1	27.8	5.5	6.6	9.8	1.6	

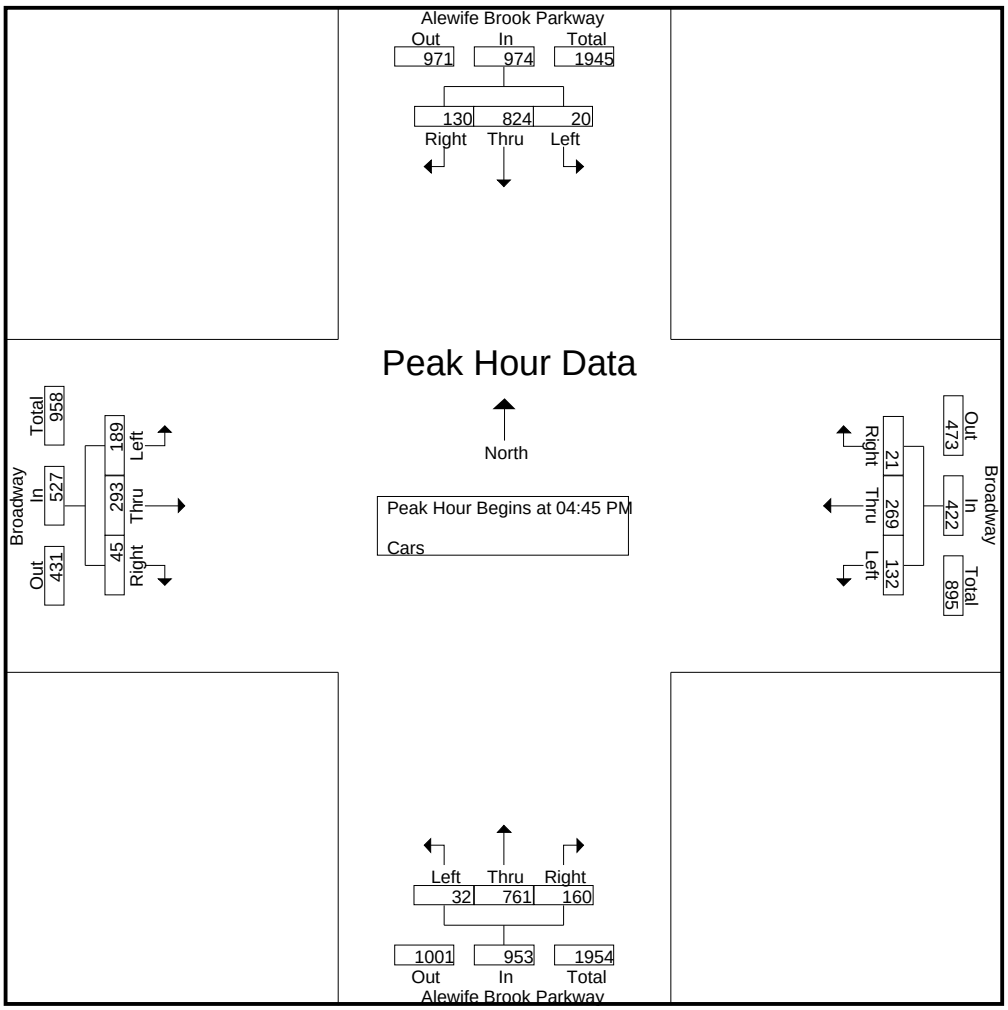
Accurate Counts

978-664-2565

N/S Street : Alewife Brook Parkway
E/W Street: Broadway
City/State : Somerville, MA
Weather : Cloudy

File Name : 18610001
Site Code : 18610001
Start Date : 10/18/2016
Page No : 5

	Alewife Brook Parkway From North				Broadway From East				Alewife Brook Parkway From South				Broadway From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	5	217	22	244	**39**	66	5	**110**	5	193	41	239	34	64	12	110	703
05:00 PM	**7**	188	**40**	235	30	67	**7**	104	**11**	190	36	237	42	70	**16**	128	704
05:15 PM	2	**228**	35	**265**	39	66	5	110	10	**196**	**43**	**249**	**62**	**80**	11	**153**	**777**
05:30 PM	6	191	33	230	24	**70**	4	98	6	182	40	228	51	79	6	136	692
Total Volume	20	824	130	974	132	269	21	422	32	761	160	953	189	293	45	527	2876
% App. Total	2.1	84.6	13.3		31.3	63.7	5		3.4	79.9	16.8		35.9	55.6	8.5		
PHF	.714	.904	.813	.919	.846	.961	.750	.959	.727	.971	.930	.957	.762	.916	.703	.861	.925



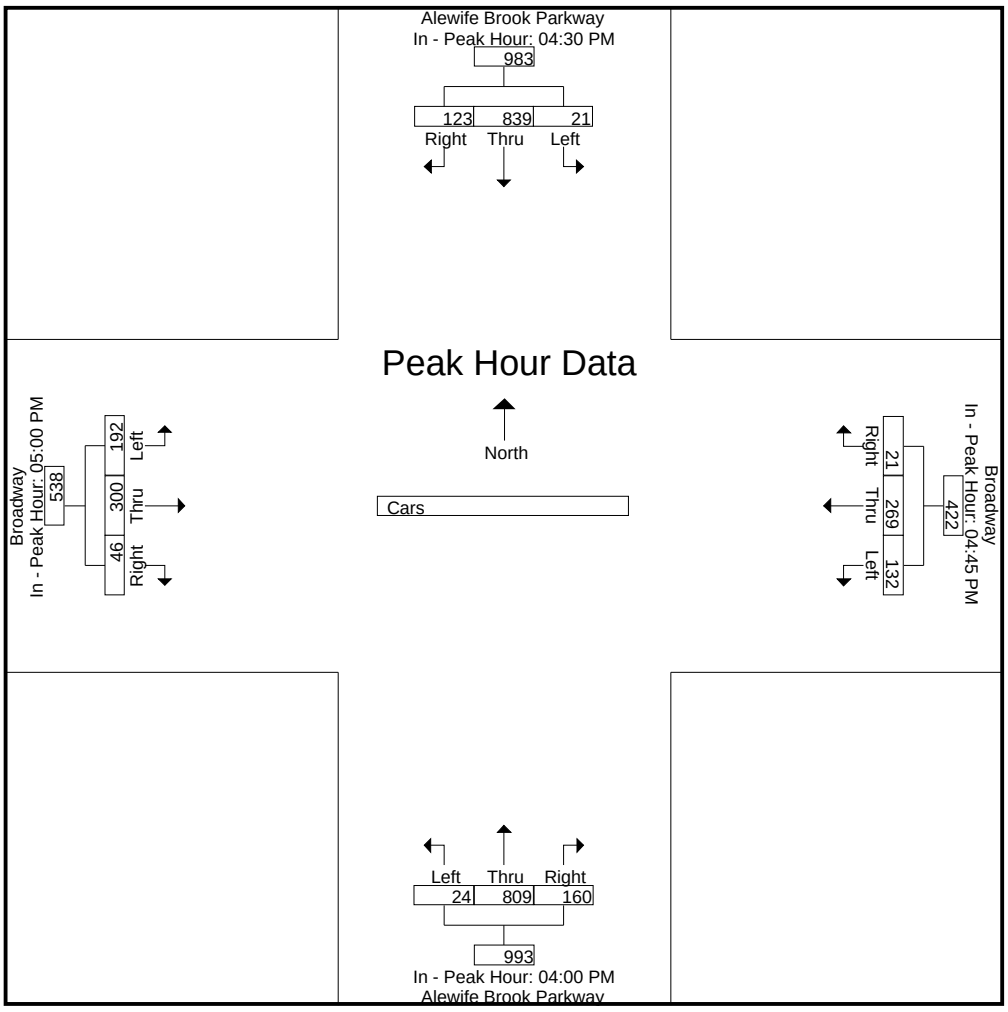
Accurate Counts

978-664-2565

N/S Street : Alewife Brook Parkway
E/W Street: Broadway
City/State : Somerville, MA
Weather : Cloudy

File Name : 18610001
Site Code : 18610001
Start Date : 10/18/2016
Page No : 6

	Alewife Brook Parkway From North				Broadway From East				Alewife Brook Parkway From South				Broadway From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:30 PM				04:45 PM				04:00 PM				05:00 PM				
+0 mins.	**7**	206	26	239	**39**	66	5	**110**	**8**	**224**	**45**	**277**	42	70	**16**	128	
+15 mins.	5	217	22	244	30	67	**7**	104	5	220	42	267	**62**	**80**	11	**153**	
+30 mins.	7	188	**40**	235	39	66	5	110	6	172	32	210	51	79	6	136	
+45 mins.	2	**228**	35	**265**	24	**70**	4	98	5	193	41	239	37	71	13	121	
Total Volume	21	839	123	983	132	269	21	422	24	809	160	993	192	300	46	538	
% App. Total	2.1	85.4	12.5		31.3	63.7	5		2.4	81.5	16.1		35.7	55.8	8.6		
PHF	.750	.920	.769	.927	.846	.961	.750	.959	.750	.903	.889	.896	.774	.938	.719	.879	



Accurate Counts

978-664-2565

N/S Street : Alewife Brook Parkway
E/W Street: Broadway
City/State : Somerville, MA
Weather : Cloudy

File Name : 18610001
Site Code : 18610001
Start Date : 10/18/2016
Page No : 7

Groups Printed- Trucks

	Alewife Brook Parkway From North			Broadway From East			Alewife Brook Parkway From South			Broadway From West			
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
04:00 PM	0	0	0	0	1	0	0	0	0	0	3	0	4
04:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
04:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
Total	0	0	0	0	2	0	0	0	0	0	5	0	7
05:00 PM	0	0	0	0	1	0	0	0	0	0	1	0	2
05:15 PM	0	0	0	0	1	0	0	0	0	0	1	0	2
05:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
Total	0	0	0	0	3	0	0	0	0	0	3	0	6
Grand Total	0	0	0	0	5	0	0	0	0	0	8	0	13
Apprch %	0	0	0	0	100	0	0	0	0	0	100	0	
Total %	0	0	0	0	38.5	0	0	0	0	0	61.5	0	

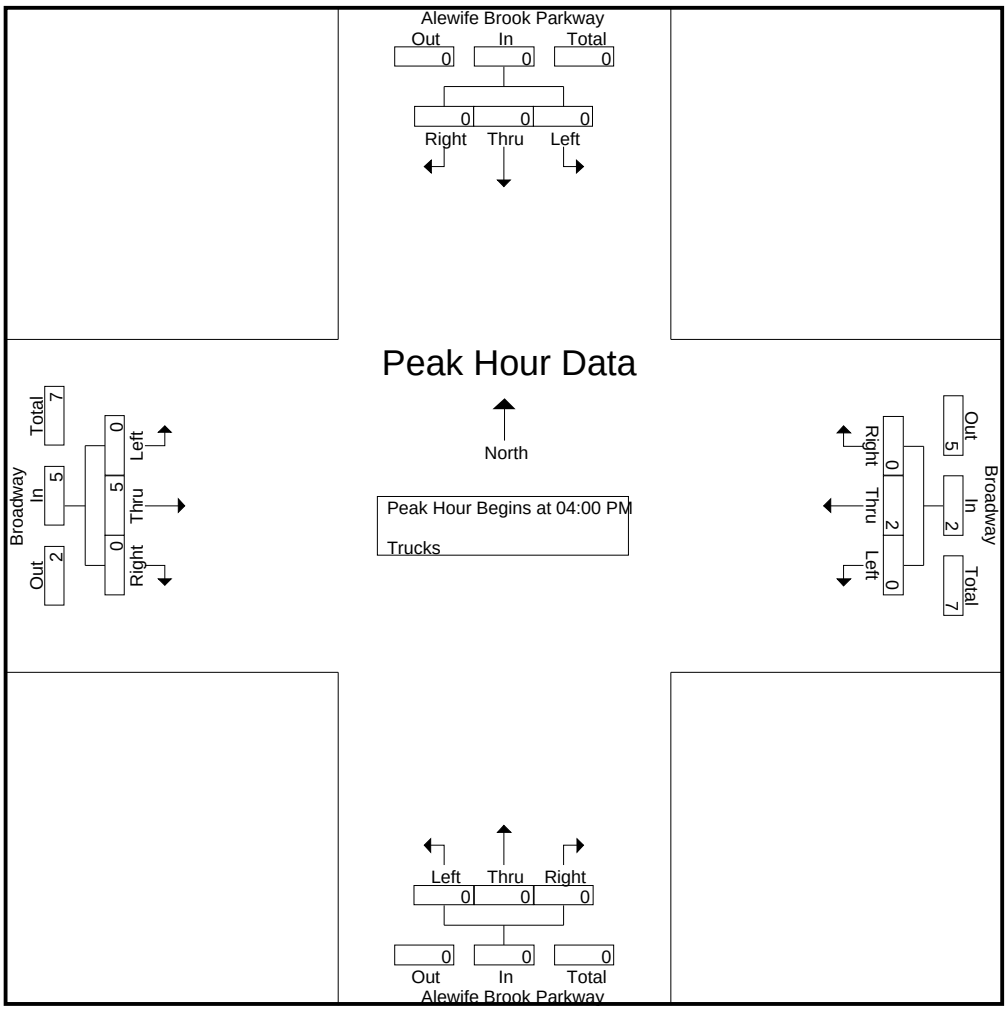
Accurate Counts

978-664-2565

N/S Street : Alewife Brook Parkway
E/W Street: Broadway
City/State : Somerville, MA
Weather : Cloudy

File Name : 18610001
Site Code : 18610001
Start Date : 10/18/2016
Page No : 8

	Alewife Brook Parkway From North				Broadway From East				Alewife Brook Parkway From South				Broadway From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	**3**	0	**3**	**4**
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
04:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total Volume	0	0	0	0	0	2	0	2	0	0	0	0	0	5	0	5	7
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000	.000	.417	.000	.417	.438



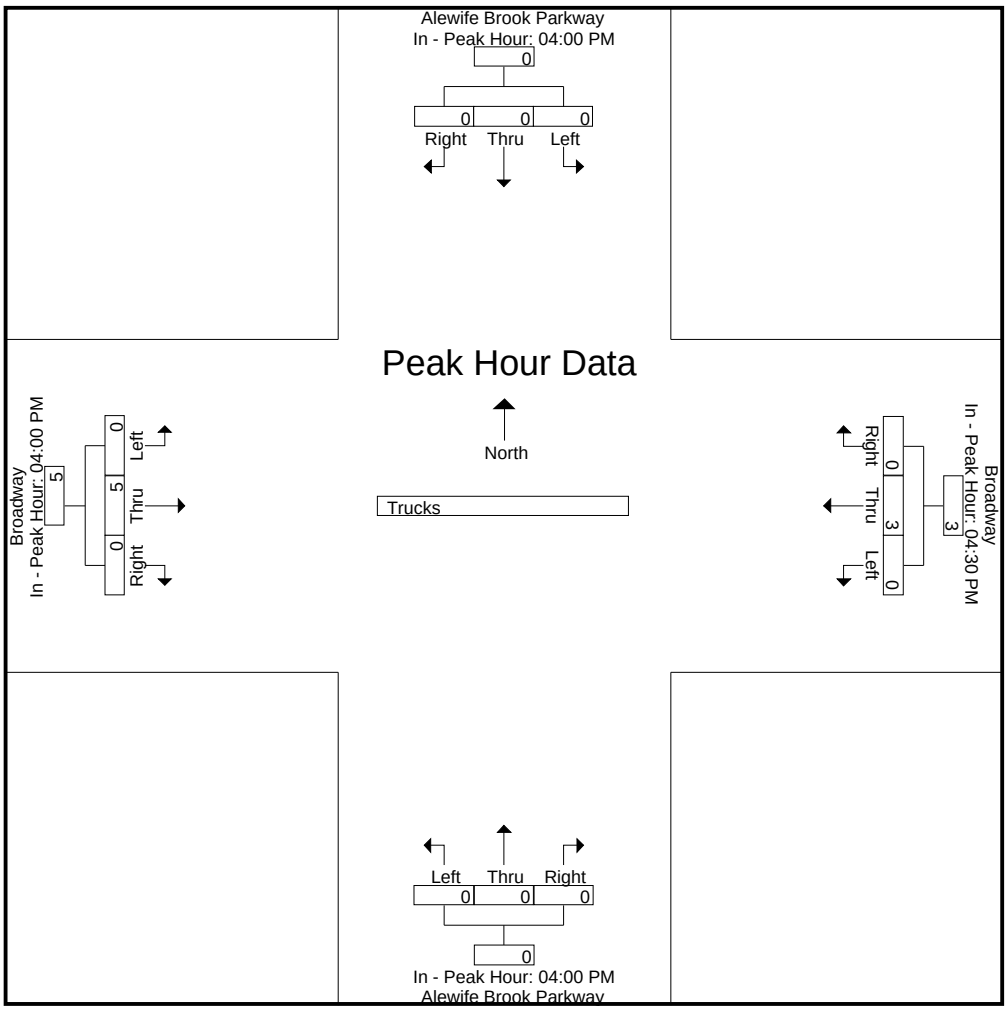
Accurate Counts

978-664-2565

N/S Street : Alewife Brook Parkway
E/W Street: Broadway
City/State : Somerville, MA
Weather : Cloudy

File Name : 18610001
Site Code : 18610001
Start Date : 10/18/2016
Page No : 9

	Alewife Brook Parkway From North				Broadway From East				Alewife Brook Parkway From South				Broadway From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:00 PM				04:30 PM				04:00 PM				04:00 PM				
+0 mins.	0	0	0	0	0	**1**	0	**1**	0	0	0	0	0	**3**	0	**3**	
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	
+30 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	
+45 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	
Total Volume	0	0	0	0	0	3	0	3	0	0	0	0	0	5	0	5	
% App. Total	0	0	0		0	100	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.750	.000	.750	.000	.000	.000	.000	.000	.417	.000	.417	



Accurate Counts

978-664-2565

N/S Street : Alewife Brook Parkway
E/W Street: Broadway
City/State : Somerville, MA
Weather : Cloudy

File Name : 18610001
Site Code : 18610001
Start Date : 10/18/2016

Groups Printed- Bikes Peds

	Alewife Brook Parkway From North				Broadway From East				Alewife Brook Parkway From South				Broadway From West						
Start Time	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	7	0	1	0	3	0	1	0	8	0	1	0	1	19	3	22
04:15 PM	0	0	0	7	0	2	0	3	0	0	0	9	0	1	0	2	21	3	24
04:30 PM	0	0	0	11	0	0	0	2	0	0	0	3	0	1	0	4	20	1	21
04:45 PM	0	0	0	3	0	0	0	1	0	0	0	6	0	0	0	2	12	0	12
Total	0	0	0	28	0	3	0	9	0	1	0	26	0	3	0	9	72	7	79
05:00 PM	0	0	0	8	0	0	0	2	0	0	0	3	0	1	0	1	14	1	15
05:15 PM	0	0	0	6	0	0	0	1	0	0	0	5	0	1	0	1	13	1	14
05:30 PM	0	0	0	9	0	0	0	5	0	0	0	10	0	0	0	1	25	0	25
05:45 PM	0	0	0	7	0	1	0	0	0	0	0	6	0	2	0	2	15	3	18
Total	0	0	0	30	0	1	0	8	0	0	0	24	0	4	0	5	67	5	72
Grand Total	0	0	0	58	0	4	0	17	0	1	0	50	0	7	0	14	139	12	151
Apprch %	0	0	0		0	100	0		0	100	0		0	100	0				
Total %	0	0	0		0	33.3	0		0	8.3	0		0	58.3	0		92.1	7.9	

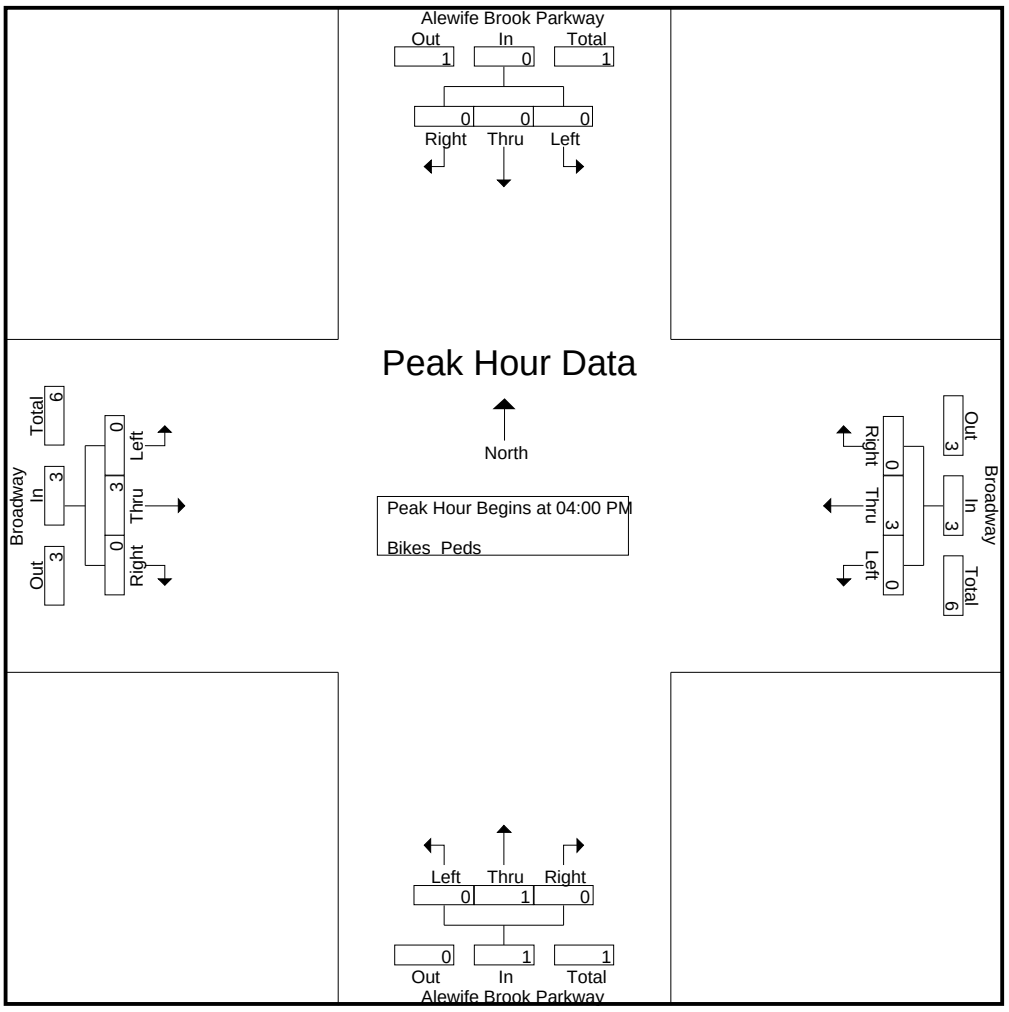
Accurate Counts

978-664-2565

N/S Street : Alewife Brook Parkway
E/W Street: Broadway
City/State : Somerville, MA
Weather : Cloudy

File Name : 18610001
Site Code : 18610001
Start Date : 10/18/2016
Page No : 11

	Alewife Brook Parkway From North				Broadway From East				Alewife Brook Parkway From South				Broadway From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	1	0	1	0	**1**	0	**1**	0	**1**	0	**1**	**3**
04:15 PM	0	0	0	0	0	**2**	0	**2**	0	0	0	0	0	1	0	1	3
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	3	0	3	0	1	0	1	0	3	0	3	7
% App. Total	0	0	0		0	100	0		0	100	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.375	.000	.375	.000	.250	.000	.250	.000	.750	.000	.750	.583



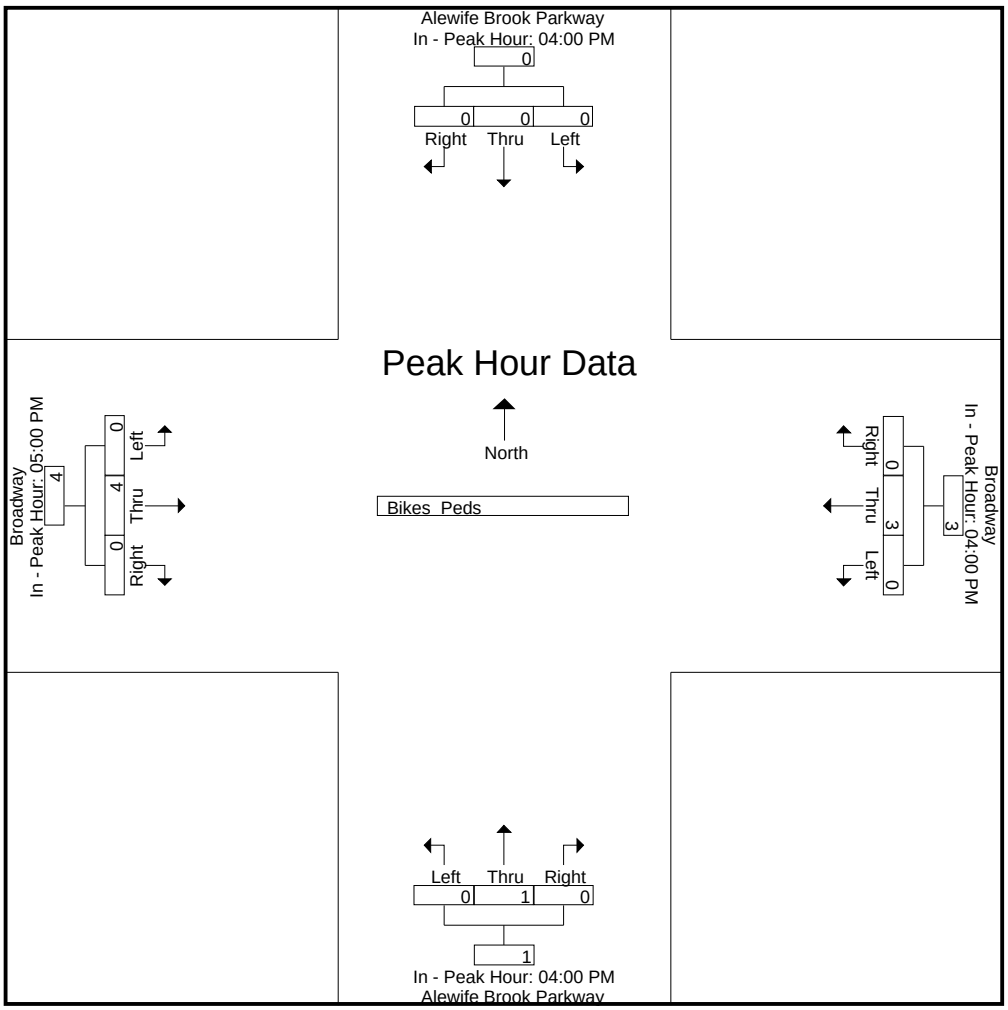
Accurate Counts

978-664-2565

N/S Street : Alewife Brook Parkway
E/W Street: Broadway
City/State : Somerville, MA
Weather : Cloudy

File Name : 18610001
Site Code : 18610001
Start Date : 10/18/2016
Page No : 12

	Alewife Brook Parkway From North				Broadway From East				Alewife Brook Parkway From South				Broadway From West				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	04:00 PM				04:00 PM				04:00 PM				05:00 PM				
+0 mins.	0	0	0	0	0	1	0	1	0	**1**	0	**1**	0	1	0	1	
+15 mins.	0	0	0	0	0	**2**	0	**2**	0	0	0	0	0	1	0	1	
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	0	**2**	
Total Volume	0	0	0	0	0	3	0	3	0	1	0	1	0	4	0	4	
% App. Total	0	0	0		0	100	0		0	100	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.375	.000	.375	.000	.250	.000	.250	.000	.500	.000	.500	



Accurate Counts

978-664-2565

N/S Street : Sunnyside Avenue
E/W Street : Broadway
City/State : Arlington, MA
Weather : Clear

File Name : 86410001
Site Code : 86410001
Start Date : 6/11/2020

Groups Printed- Cars - Trucks

	Sunnyside Ave From North		Broadway From East		Broadway From West		
Start Time	Left	Right	Thru	Right	Left	Thru	Int. Total
04:00 PM	1	1	41	4	4	57	108
04:15 PM	3	2	42	0	2	65	114
04:30 PM	1	1	55	4	3	74	138
04:45 PM	3	1	43	3	1	65	116
Total	8	5	181	11	10	261	476
05:00 PM	0	2	45	2	5	60	114
05:15 PM	3	1	43	4	1	75	127
05:30 PM	0	1	50	1	0	54	106
05:45 PM	2	0	45	2	0	47	96
Total	5	4	183	9	6	236	443
Grand Total	13	9	364	20	16	497	919
Apprch %	59.1	40.9	94.8	5.2	3.1	96.9	
Total %	1.4	1	39.6	2.2	1.7	54.1	
Cars	13	9	358	20	16	489	905
% Cars	100	100	98.4	100	100	98.4	98.5
Trucks	0	0	6	0	0	8	14
% Trucks	0	0	1.6	0	0	1.6	1.5

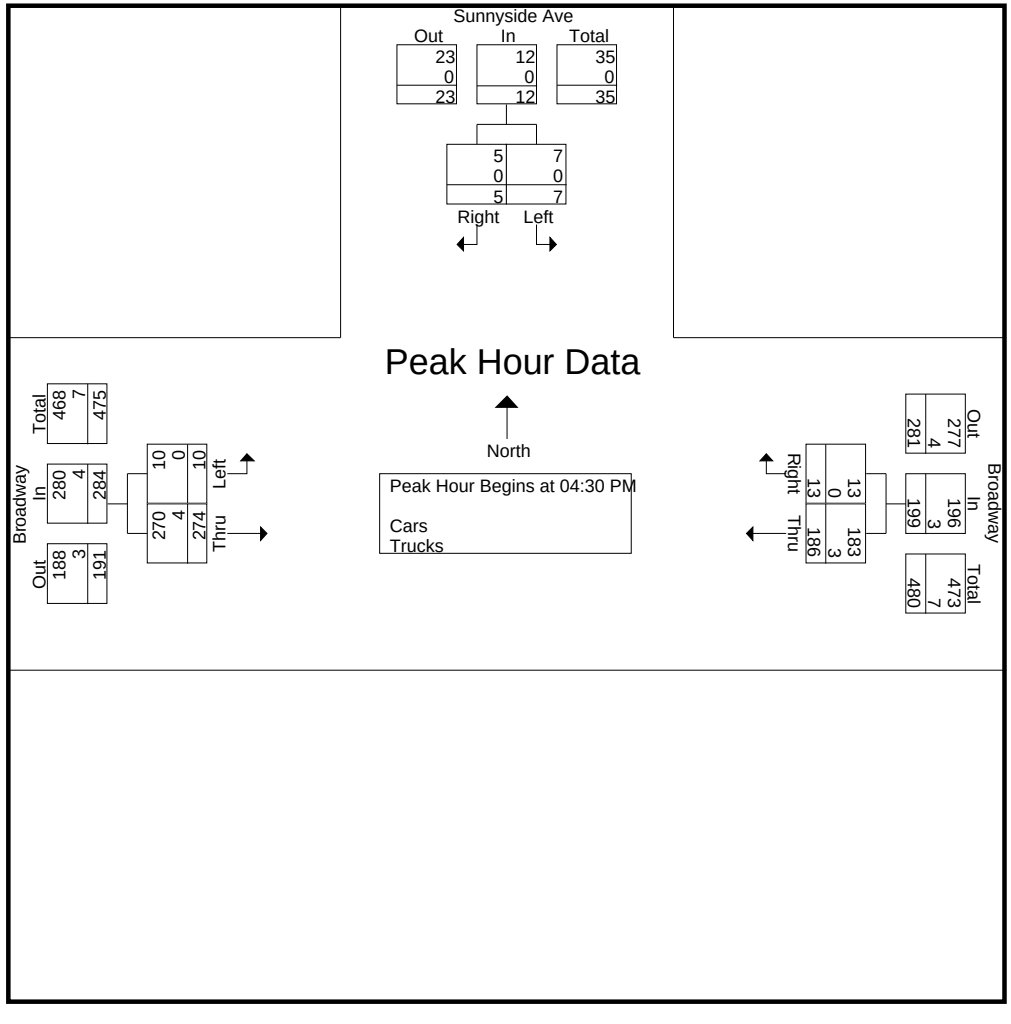
	Sunnyside Ave From North			Broadway From East			Broadway From West			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	1	1	2	**55**	**4**	**59**	3	74	**77**	**138**
04:45 PM	**3**	1	**4**	43	3	46	1	65	66	116
05:00 PM	0	**2**	2	45	2	47	**5**	60	65	114
05:15 PM	3	1	4	43	4	47	1	**75**	76	127
Total Volume	7	5	12	186	13	199	10	274	284	495
% App. Total	58.3	41.7		93.5	6.5		3.5	96.5		
PHF	.583	.625	.750	.845	.813	.843	.500	.913	.922	.897
Cars	7	5	12	183	13	196	10	270	280	488
% Cars	100	100	100	98.4	100	98.5	100	98.5	98.6	98.6
Trucks	0	0	0	3	0	3	0	4	4	7
% Trucks	0	0	0	1.6	0	1.5	0	1.5	1.4	1.4

Accurate Counts

978-664-2565

N/S Street : Sunnyside Avenue
E/W Street : Broadway
City/State : Arlington, MA
Weather : Clear

File Name : 86410001
Site Code : 86410001
Start Date : 6/11/2020
Page No : 2

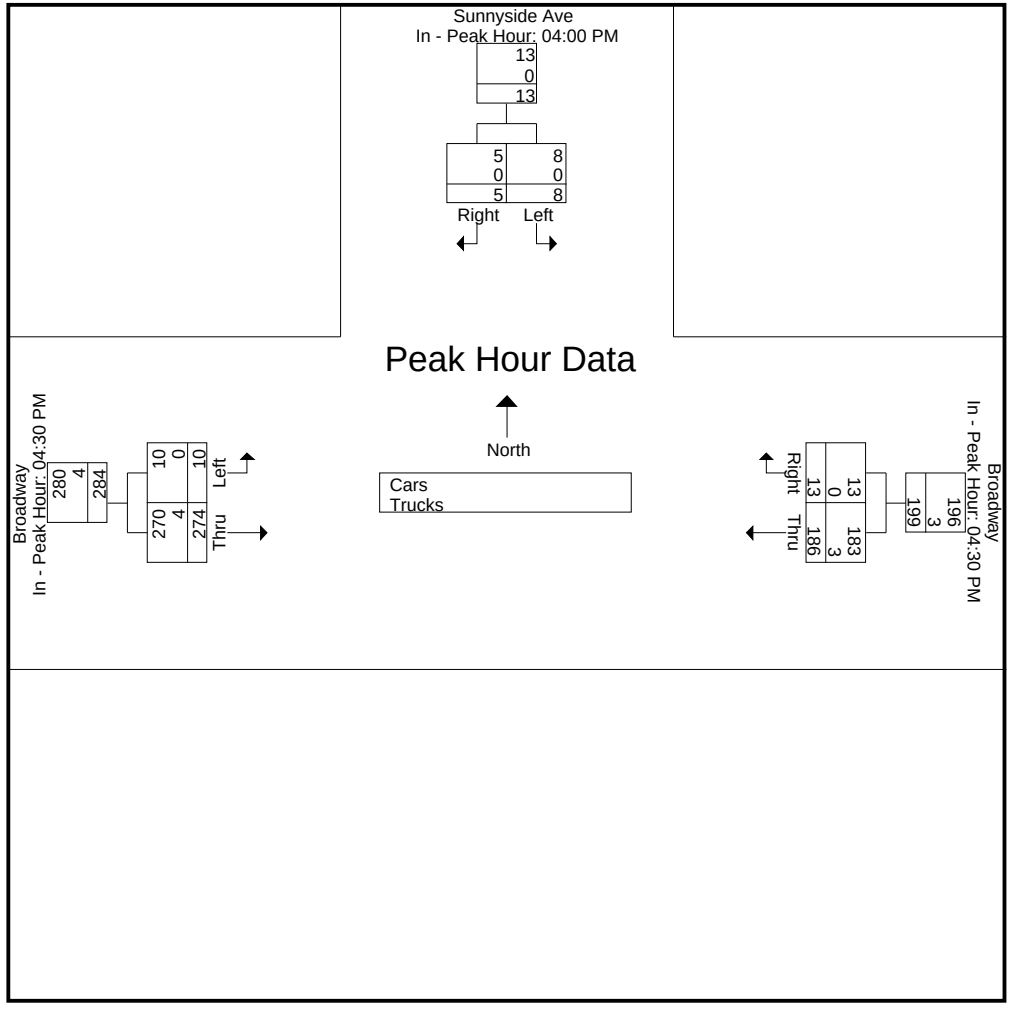


Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM			04:30 PM			04:30 PM		
+0 mins.	1	1	2	**55**	**4**	**59**	3	74	**77**
+15 mins.	**3**	**2**	**5**	43	3	46	1	65	66
+30 mins.	1	1	2	45	2	47	**5**	60	65
+45 mins.	3	1	4	43	4	47	1	**75**	76
Total Volume	8	5	13	186	13	199	10	274	284
% App. Total	61.5	38.5		93.5	6.5		3.5	96.5	
PHF	.667	.625	.650	.845	.813	.843	.500	.913	.922
Cars	8	5	13	183	13	196	10	270	280
% Cars	100	100	100	98.4	100	98.5	100	98.5	98.6
Trucks	0	0	0	3	0	3	0	4	4

Accurate Counts
978-664-2565



Accurate Counts

978-664-2565

N/S Street : Sunnyside Avenue
E/W Street : Broadway
City/State : Arlington, MA
Weather : Clear

File Name : 86410001
Site Code : 86410001
Start Date : 6/11/2020

Groups Printed- Cars

	Sunnyside Ave From North		Broadway From East		Broadway From West		
Start Time	Left	Right	Thru	Right	Left	Thru	Int. Total
04:00 PM	1	1	40	4	4	57	107
04:15 PM	3	2	42	0	2	63	112
04:30 PM	1	1	55	4	3	73	137
04:45 PM	3	1	41	3	1	65	114
Total	8	5	178	11	10	258	470
05:00 PM	0	2	44	2	5	59	112
05:15 PM	3	1	43	4	1	73	125
05:30 PM	0	1	49	1	0	53	104
05:45 PM	2	0	44	2	0	46	94
Total	5	4	180	9	6	231	435
Grand Total	13	9	358	20	16	489	905
Apprch %	59.1	40.9	94.7	5.3	3.2	96.8	
Total %	1.4	1	39.6	2.2	1.8	54	

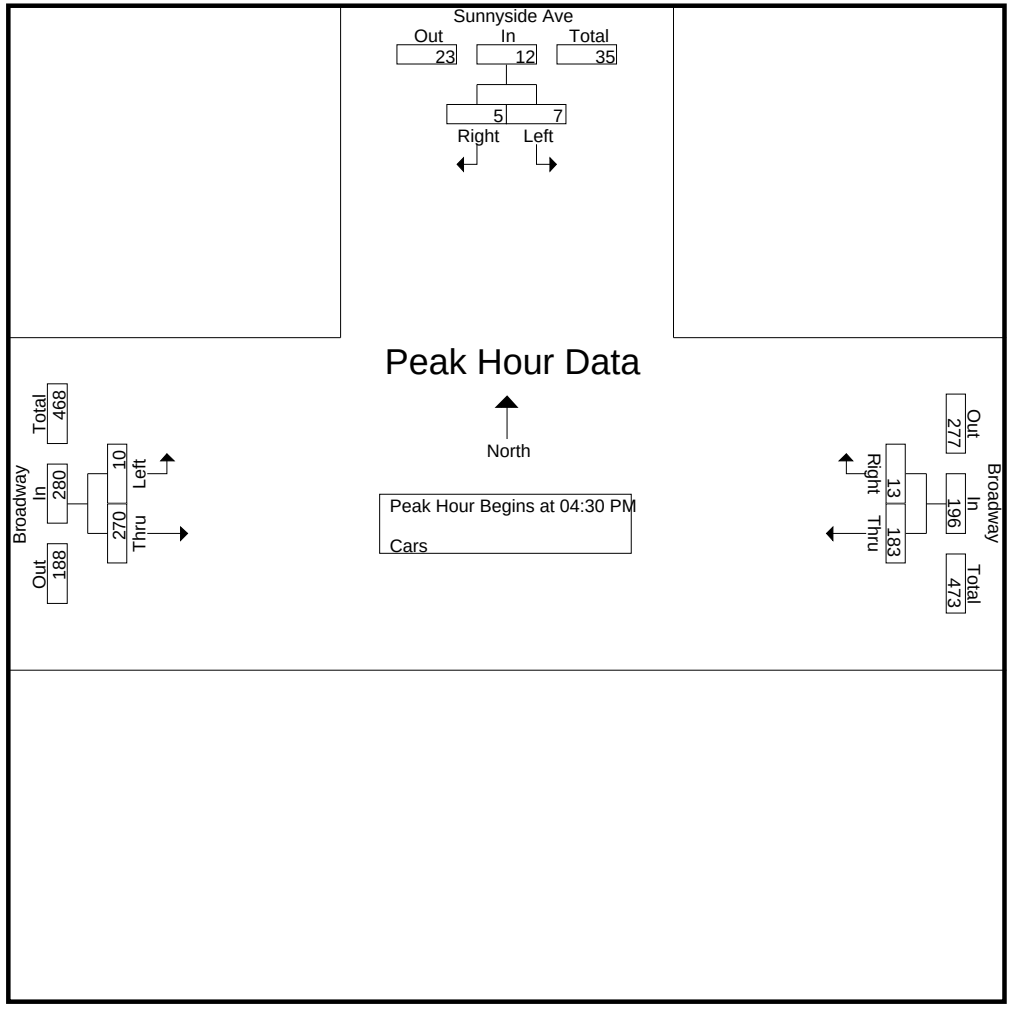
	Sunnyside Ave From North			Broadway From East			Broadway From West			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	1	1	2	**55**	**4**	**59**	3	**73**	**76**	**137**
04:45 PM	**3**	1	**4**	41	3	44	1	65	66	114
05:00 PM	0	**2**	2	44	2	46	**5**	59	64	112
05:15 PM	3	1	4	43	4	47	1	73	74	125
Total Volume	7	5	12	183	13	196	10	270	280	488
% App. Total	58.3	41.7		93.4	6.6		3.6	96.4		
PHF	.583	.625	.750	.832	.813	.831	.500	.925	.921	.891

Accurate Counts

978-664-2565

N/S Street : Sunnyside Avenue
E/W Street : Broadway
City/State : Arlington, MA
Weather : Clear

File Name : 86410001
Site Code : 86410001
Start Date : 6/11/2020
Page No : 5



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

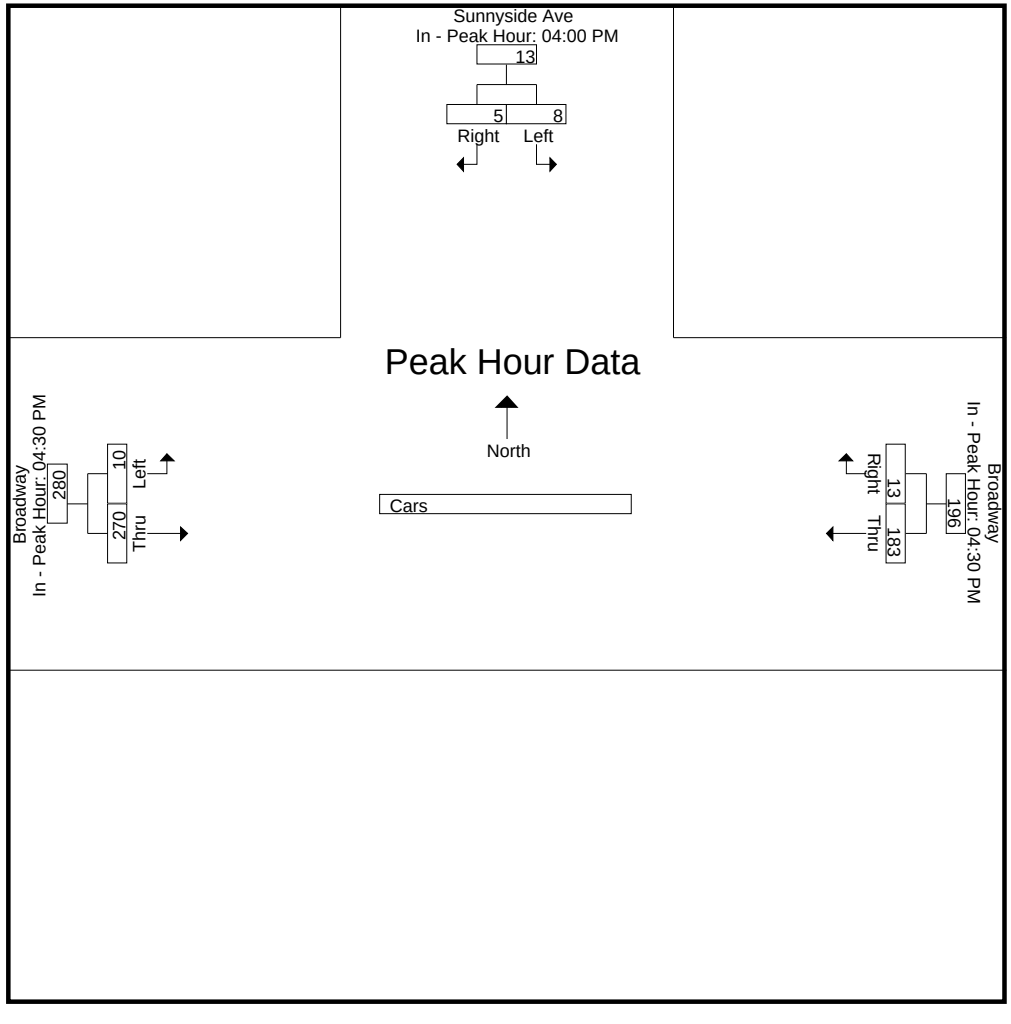
	04:00 PM			04:30 PM			04:30 PM		
+0 mins.	1	1	2	**55**	**4**	**59**	3	**73**	**76**
+15 mins.	**3**	**2**	**5**	41	3	44	1	65	66
+30 mins.	1	1	2	44	2	46	**5**	59	64
+45 mins.	3	1	4	43	4	47	1	73	74
Total Volume	8	5	13	183	13	196	10	270	280
% App. Total	61.5	38.5		93.4	6.6		3.6	96.4	
PHF	.667	.625	.650	.832	.813	.831	.500	.925	.921

Accurate Counts

978-664-2565

N/S Street : Sunnyside Avenue
E/W Street : Broadway
City/State : Arlington, MA
Weather : Clear

File Name : 86410001
Site Code : 86410001
Start Date : 6/11/2020
Page No : 6



Accurate Counts

978-664-2565

N/S Street : Sunnyside Avenue
E/W Street : Broadway
City/State : Arlington, MA
Weather : Clear

File Name : 86410001
Site Code : 86410001
Start Date : 6/11/2020

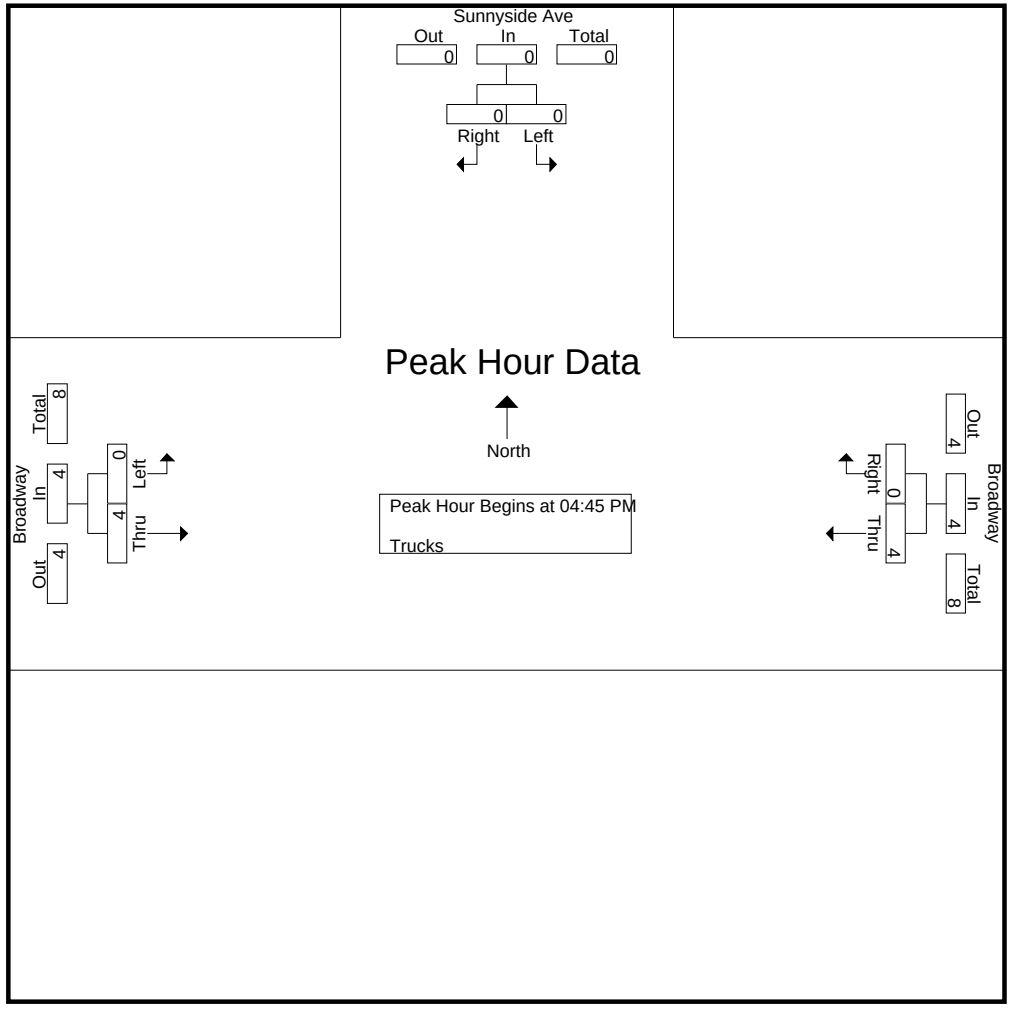
Groups Printed- Trucks

	Sunnyside Ave From North		Broadway From East		Broadway From West		
Start Time	Left	Right	Thru	Right	Left	Thru	Int. Total
04:00 PM	0	0	1	0	0	0	1
04:15 PM	0	0	0	0	0	2	2
04:30 PM	0	0	0	0	0	1	1
04:45 PM	0	0	2	0	0	0	2
Total	0	0	3	0	0	3	6
05:00 PM	0	0	1	0	0	1	2
05:15 PM	0	0	0	0	0	2	2
05:30 PM	0	0	1	0	0	1	2
05:45 PM	0	0	1	0	0	1	2
Total	0	0	3	0	0	5	8
Grand Total	0	0	6	0	0	8	14
Apprch %	0	0	100	0	0	100	
Total %	0	0	42.9	0	0	57.1	

	Sunnyside Ave From North			Broadway From East			Broadway From West			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	0	0	**2**	0	**2**	0	0	0	**2**
05:00 PM	0	0	0	1	0	1	0	1	1	2
05:15 PM	0	0	0	0	0	0	0	**2**	**2**	2
05:30 PM	0	0	0	1	0	1	0	1	1	2
Total Volume	0	0	0	4	0	4	0	4	4	8
% App. Total	0	0		100	0		0	100		
PHF	.000	.000	.000	.500	.000	.500	.000	.500	.500	1.00

N/S Street : Sunnyside Avenue
E/W Street : Broadway
City/State : Arlington, MA
Weather : Clear

File Name : 86410001
Site Code : 86410001
Start Date : 6/11/2020
Page No : 8



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

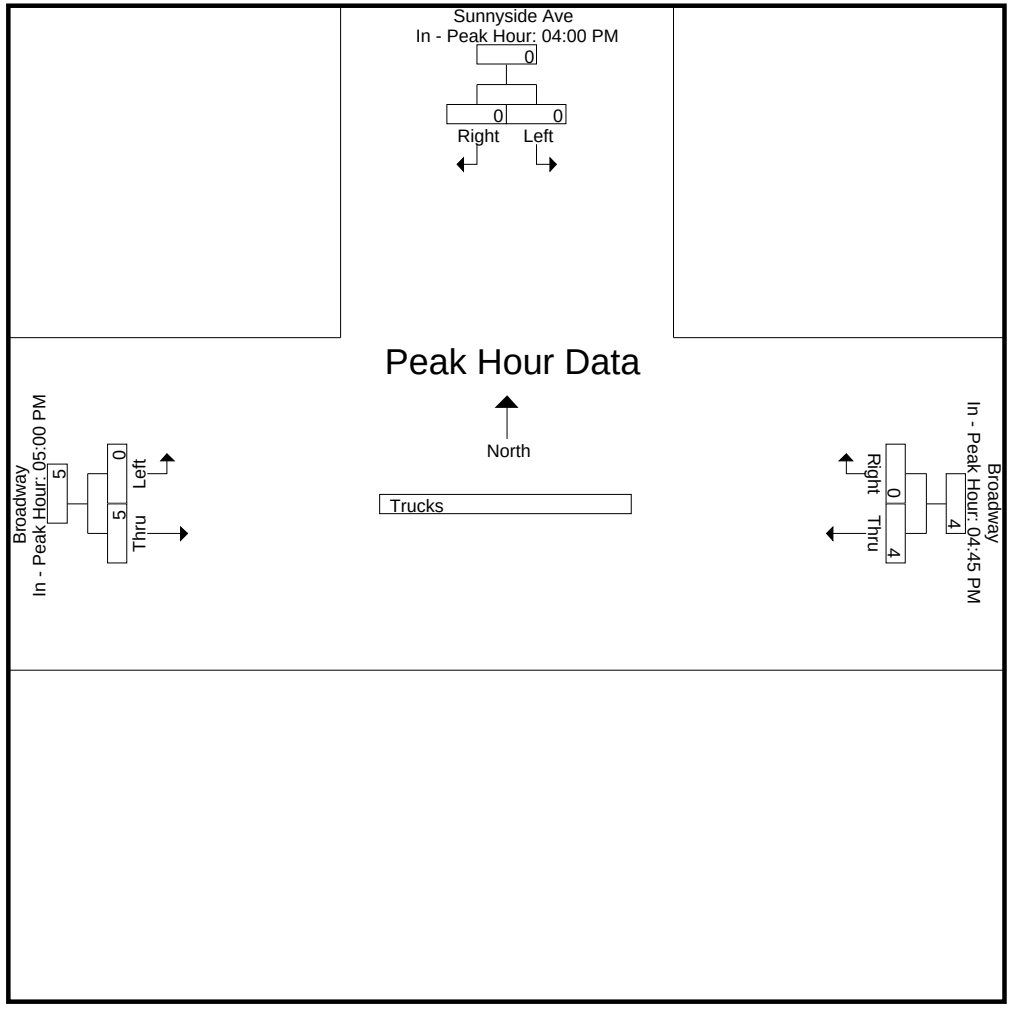
	04:00 PM			04:45 PM			05:00 PM		
+0 mins.	0	0	0	**2**	0	**2**	0	1	1
+15 mins.	0	0	0	1	0	1	0	**2**	**2**
+30 mins.	0	0	0	0	0	0	0	1	1
+45 mins.	0	0	0	1	0	1	0	1	1
Total Volume	0	0	0	4	0	4	0	5	5
% App. Total	0	0		100	0		0	100	
PHF	.000	.000	.000	.500	.000	.500	.000	.625	.625

Accurate Counts

978-664-2565

N/S Street : Sunnyside Avenue
E/W Street : Broadway
City/State : Arlington, MA
Weather : Clear

File Name : 86410001
Site Code : 86410001
Start Date : 6/11/2020
Page No : 9



Accurate Counts

978-664-2565

N/S Street : Sunnyside Avenue
E/W Street : Broadway
City/State : Arlington, MA
Weather : Clear

File Name : 86410001
Site Code : 86410001
Start Date : 6/11/2020

Groups Printed- Bikes Peds

	Sunnyside Ave From North			Broadway From East			Broadway From West					
Start Time	Left	Right	Peds	Thru	Right	Peds	Left	Thru	Peds	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	3	1	0	0	0	0	1	4	1	5
04:15 PM	0	0	4	1	0	0	0	2	0	4	3	7
04:30 PM	0	0	5	0	0	0	0	2	0	5	2	7
04:45 PM	0	0	1	3	0	0	0	0	0	1	3	4
Total	0	0	13	5	0	0	0	4	1	14	9	23
05:00 PM	1	0	4	0	0	0	0	1	0	4	2	6
05:15 PM	0	0	2	1	0	0	0	3	0	2	4	6
05:30 PM	0	0	6	0	0	0	0	0	0	6	0	6
05:45 PM	0	0	4	0	1	0	0	2	0	4	3	7
Total	1	0	16	1	1	0	0	6	0	16	9	25
Grand Total	1	0	29	6	1	0	0	10	1	30	18	48
Apprch %	100	0		85.7	14.3		0	100				
Total %	5.6	0		33.3	5.6		0	55.6		62.5	37.5	

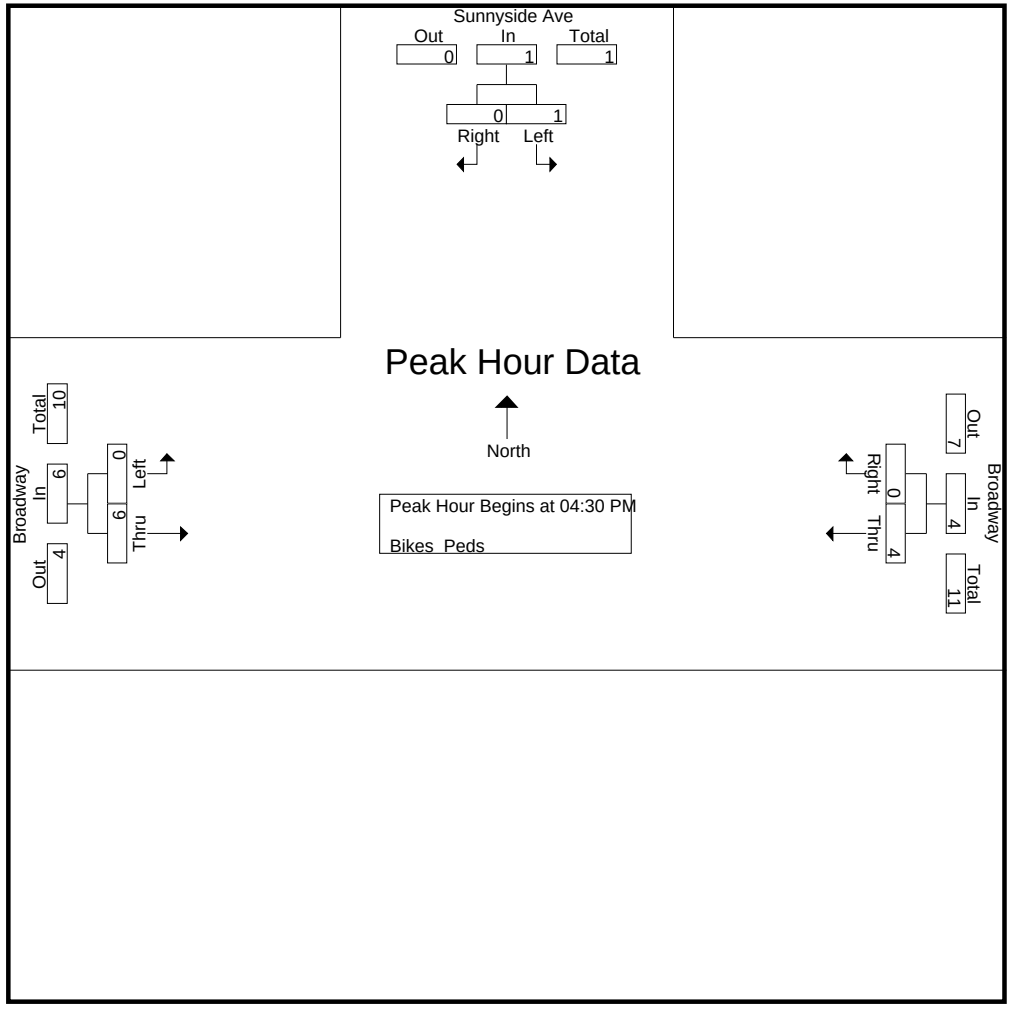
	Sunnyside Ave From North			Broadway From East			Broadway From West			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	0	0	0	0	0	0	2	2	2
04:45 PM	0	0	0	**3**	0	**3**	0	0	0	3
05:00 PM	**1**	0	**1**	0	0	0	0	1	1	2
05:15 PM	0	0	0	1	0	1	0	**3**	**3**	**4**
Total Volume	1	0	1	4	0	4	0	6	6	11
% App. Total	100	0		100	0		0	100		
PHF	.250	.000	.250	.333	.000	.333	.000	.500	.500	.688

Accurate Counts

978-664-2565

N/S Street : Sunnyside Avenue
E/W Street : Broadway
City/State : Arlington, MA
Weather : Clear

File Name : 86410001
Site Code : 86410001
Start Date : 6/11/2020
Page No : 11



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

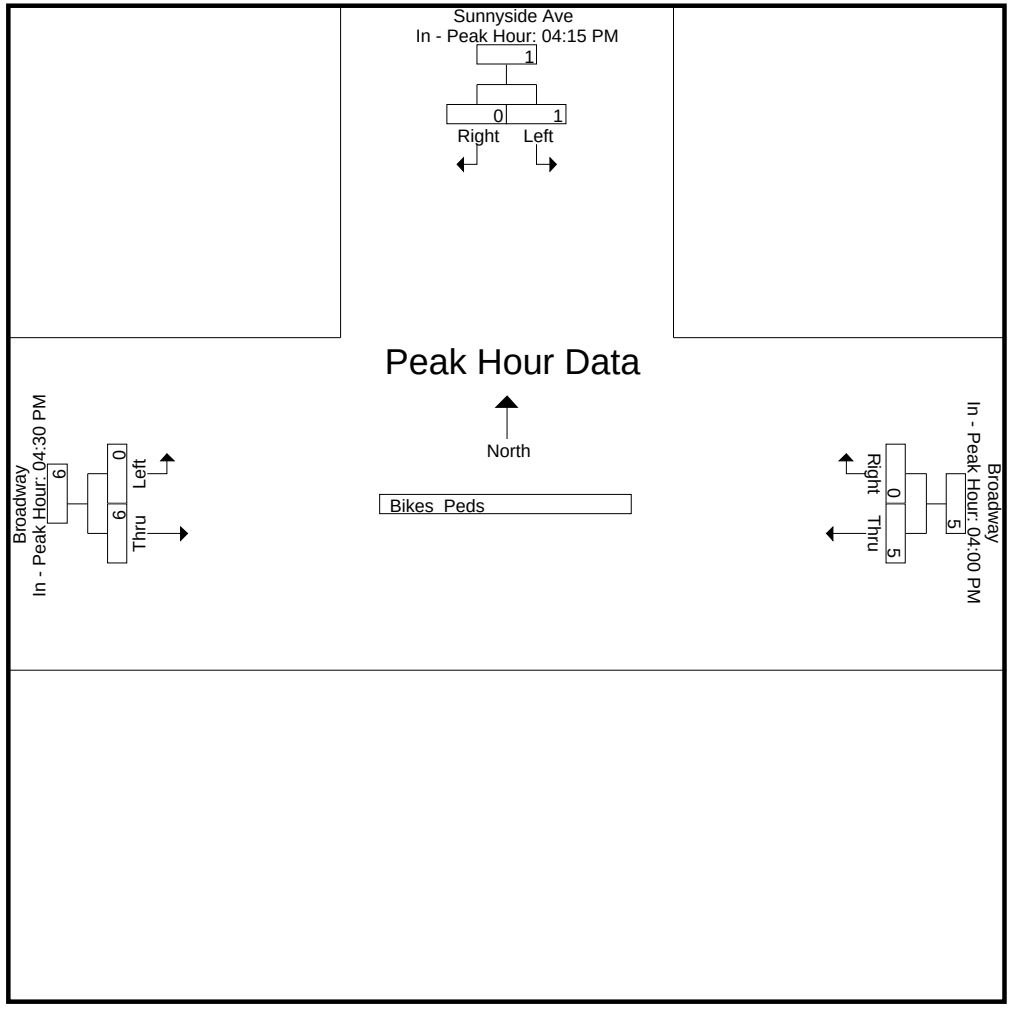
	04:15 PM			04:00 PM			04:30 PM		
+0 mins.	0	0	0	1	0	1	0	2	2
+15 mins.	0	0	0	1	0	1	0	0	0
+30 mins.	0	0	0	0	0	0	0	1	1
+45 mins.	**1**	0	**1**	**3**	0	**3**	0	**3**	**3**
Total Volume	1	0	1	5	0	5	0	6	6
% App. Total	100	0		100	0		0	100	
PHF	.250	.000	.250	.417	.000	.417	.000	.500	.500

Accurate Counts

978-664-2565

N/S Street : Sunnyside Avenue
E/W Street : Broadway
City/State : Arlington, MA
Weather : Clear

File Name : 86410001
Site Code : 86410001
Start Date : 6/11/2020
Page No : 12



Accurate Counts

978-664-2565

N/S Street : Sunnyside Avenue
E/W Street : Broadway
City/State : Arlington, MA
Weather : Clear

File Name : 864100S1
Site Code : 864100S1
Start Date : 6/13/2020

Groups Printed- Cars - Trucks

	Sunnyside Ave From North		Broadway From East		Broadway From West		
Start Time	Left	Right	Thru	Right	Left	Thru	Int. Total
11:00 AM	2	1	50	3	2	49	107
11:15 AM	4	2	54	0	2	50	112
11:30 AM	1	1	45	2	2	56	107
11:45 AM	4	0	43	2	1	58	108
Total	11	4	192	7	7	213	434
12:00 PM	0	0	47	0	2	56	105
12:15 PM	3	2	57	0	0	54	116
12:30 PM	1	2	35	0	2	51	91
12:45 PM	1	4	43	4	1	75	128
Total	5	8	182	4	5	236	440
01:00 PM	4	2	47	1	2	54	110
01:15 PM	3	0	44	5	3	55	110
01:30 PM	1	0	56	0	0	76	133
01:45 PM	5	4	42	2	1	48	102
Total	13	6	189	8	6	233	455
Grand Total	29	18	563	19	18	682	1329
Apprch %	61.7	38.3	96.7	3.3	2.6	97.4	
Total %	2.2	1.4	42.4	1.4	1.4	51.3	
Cars	29	18	536	19	18	657	1277
% Cars	100	100	95.2	100	100	96.3	96.1
Trucks	0	0	27	0	0	25	52
% Trucks	0	0	4.8	0	0	3.7	3.9

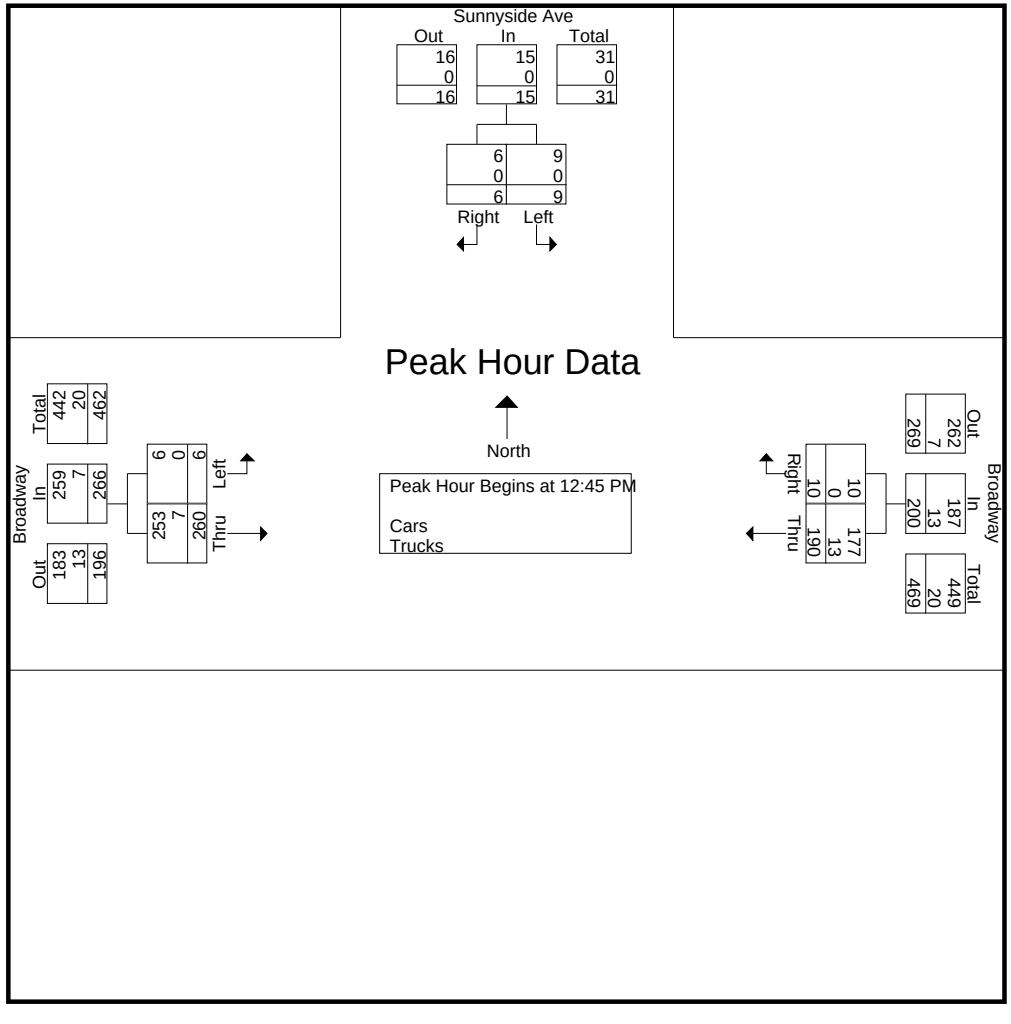
	Sunnyside Ave From North			Broadway From East			Broadway From West			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 12:45 PM										
12:45 PM	1	**4**	5	43	4	47	1	75	**76**	128
01:00 PM	**4**	2	**6**	47	1	48	2	54	56	110
01:15 PM	3	0	3	44	**5**	49	**3**	55	58	110
01:30 PM	1	0	1	**56**	0	**56**	0	**76**	76	**133**
Total Volume	9	6	15	190	10	200	6	260	266	481
% App. Total	60	40		95	5		2.3	97.7		
PHF	.563	.375	.625	.848	.500	.893	.500	.855	.875	.904
Cars	9	6	15	177	10	187	6	253	259	461
% Cars	100	100	100	93.2	100	93.5	100	97.3	97.4	95.8
Trucks	0	0	0	13	0	13	0	7	7	20
% Trucks	0	0	0	6.8	0	6.5	0	2.7	2.6	4.2

Accurate Counts

978-664-2565

N/S Street : Sunnyside Avenue
E/W Street : Broadway
City/State : Arlington, MA
Weather : Clear

File Name : 864100S1
Site Code : 864100S1
Start Date : 6/13/2020
Page No : 2

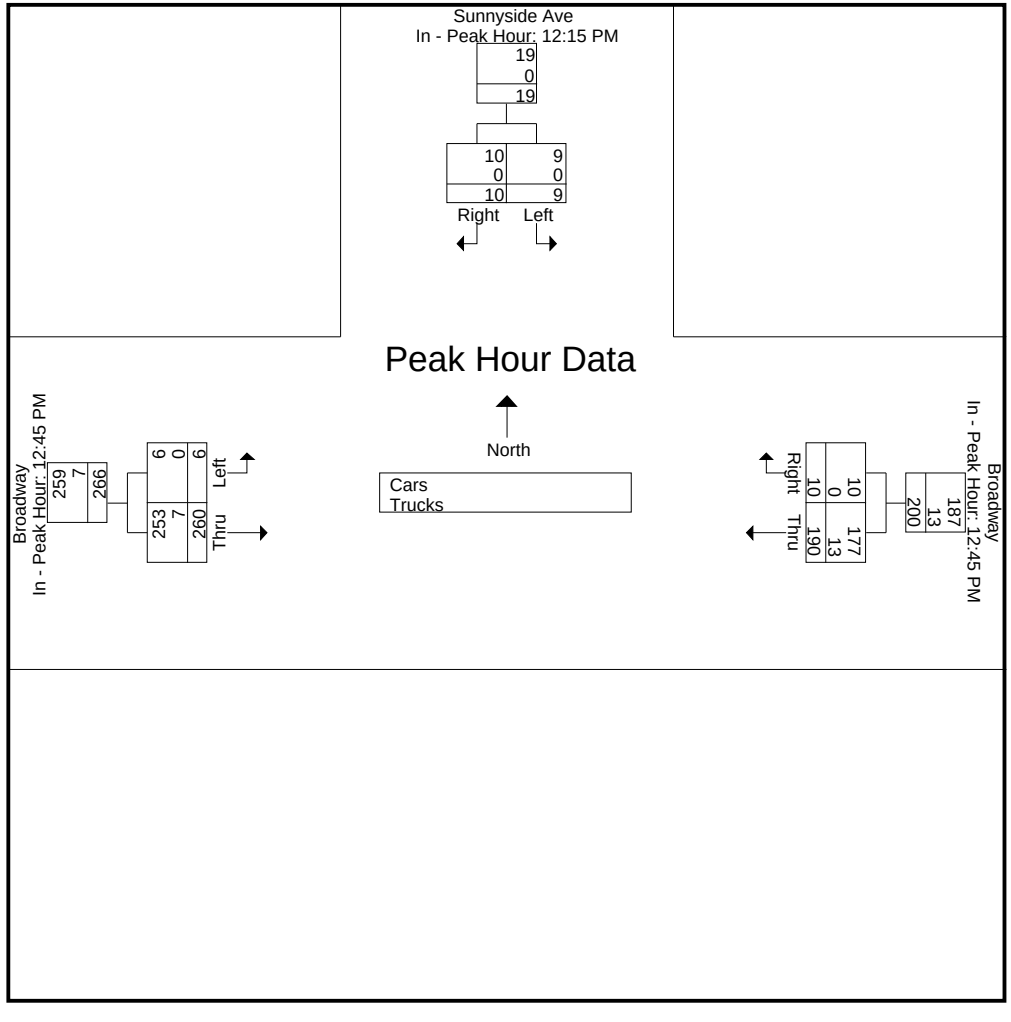


Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	12:15 PM			12:45 PM			12:45 PM		
+0 mins.	3	2	5	43	4	47	1	75	**76**
+15 mins.	1	2	3	47	1	48	2	54	56
+30 mins.	1	**4**	5	44	**5**	49	**3**	55	58
+45 mins.	**4**	2	**6**	**56**	0	**56**	0	**76**	76
Total Volume	9	10	19	190	10	200	6	260	266
% App. Total	47.4	52.6		95	5		2.3	97.7	
PHF	.563	.625	.792	.848	.500	.893	.500	.855	.875
Cars	9	10	19	177	10	187	6	253	259
% Cars	100	100	100	93.2	100	93.5	100	97.3	97.4
Trucks	0	0	0	13	0	13	0	7	7

Accurate Counts
978-664-2565



Accurate Counts

978-664-2565

N/S Street : Sunnyside Avenue
E/W Street : Broadway
City/State : Arlington, MA
Weather : Clear

File Name : 864100S1
Site Code : 864100S1
Start Date : 6/13/2020

Groups Printed- Cars

	Sunnyside Ave From North		Broadway From East		Broadway From West		
Start Time	Left	Right	Thru	Right	Left	Thru	Int. Total
11:00 AM	2	1	47	3	2	47	102
11:15 AM	4	2	53	0	2	50	111
11:30 AM	1	1	44	2	2	52	102
11:45 AM	4	0	42	2	1	56	105
Total	11	4	186	7	7	205	420
12:00 PM	0	0	46	0	2	53	101
12:15 PM	3	2	54	0	0	49	108
12:30 PM	1	2	34	0	2	51	90
12:45 PM	1	4	37	4	1	73	120
Total	5	8	171	4	5	226	419
01:00 PM	4	2	47	1	2	53	109
01:15 PM	3	0	40	5	3	54	105
01:30 PM	1	0	53	0	0	73	127
01:45 PM	5	4	39	2	1	46	97
Total	13	6	179	8	6	226	438
Grand Total	29	18	536	19	18	657	1277
Apprch %	61.7	38.3	96.6	3.4	2.7	97.3	
Total %	2.3	1.4	42	1.5	1.4	51.4	

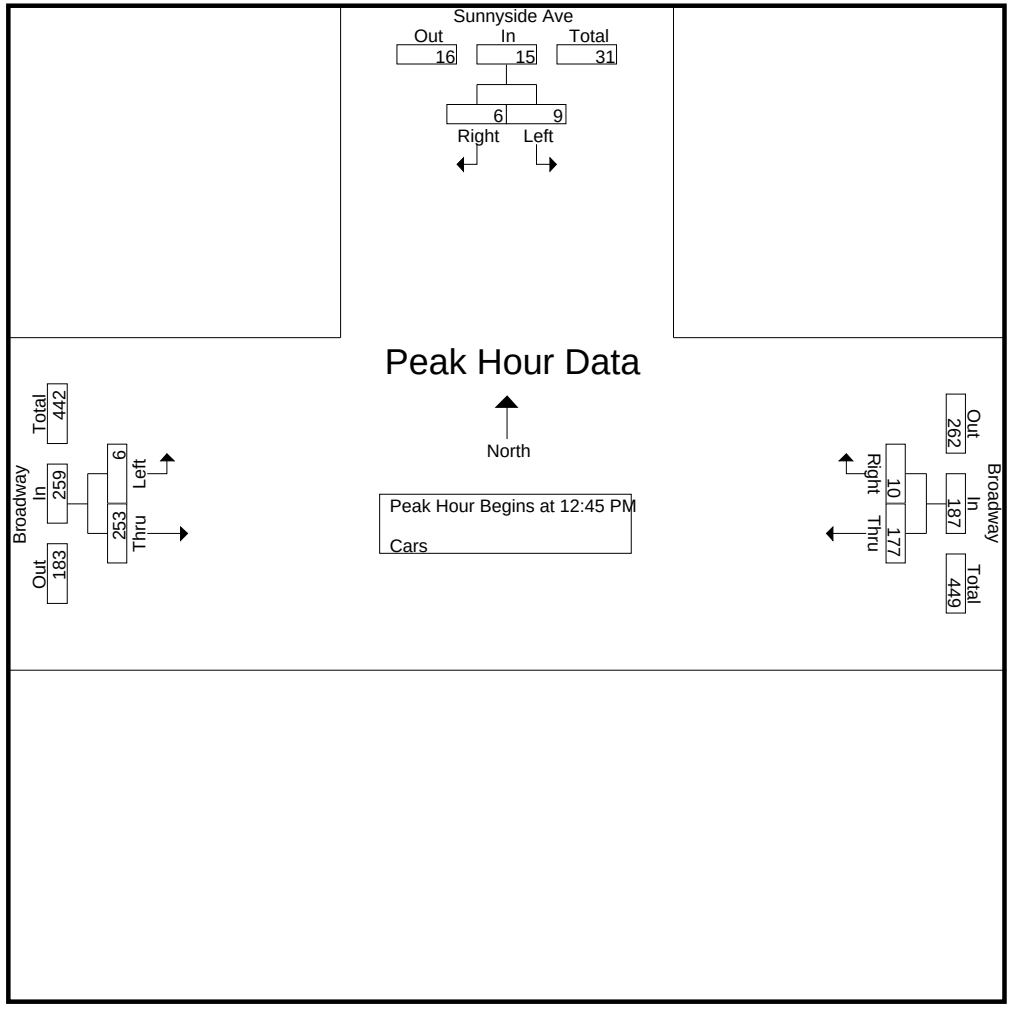
	Sunnyside Ave From North			Broadway From East			Broadway From West			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 12:45 PM										
12:45 PM	1	**4**	5	37	4	41	1	**73**	**74**	120
01:00 PM	**4**	2	**6**	47	1	48	2	53	55	109
01:15 PM	3	0	3	40	**5**	45	**3**	54	57	105
01:30 PM	1	0	1	**53**	0	**53**	0	73	73	**127**
Total Volume	9	6	15	177	10	187	6	253	259	461
% App. Total	60	40		94.7	5.3		2.3	97.7		
PHF	.563	.375	.625	.835	.500	.882	.500	.866	.875	.907

Accurate Counts

978-664-2565

N/S Street : Sunnyside Avenue
E/W Street : Broadway
City/State : Arlington, MA
Weather : Clear

File Name : 864100S1
Site Code : 864100S1
Start Date : 6/13/2020
Page No : 5



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

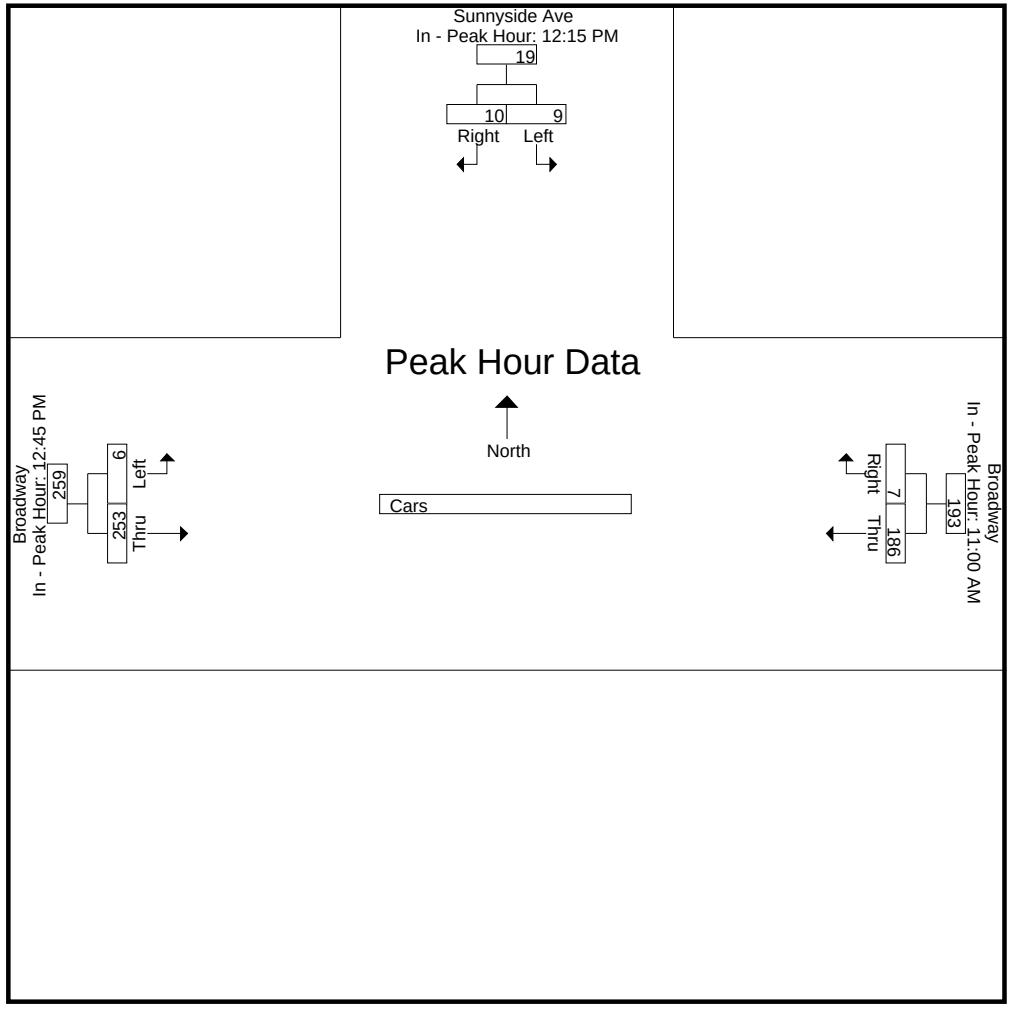
	12:15 PM			11:00 AM			12:45 PM		
+0 mins.	3	2	5	47	**3**	50	1	**73**	**74**
+15 mins.	1	2	3	**53**	0	**53**	2	53	55
+30 mins.	1	**4**	5	44	2	46	**3**	54	57
+45 mins.	**4**	2	**6**	42	2	44	0	73	73
Total Volume	9	10	19	186	7	193	6	253	259
% App. Total	47.4	52.6		96.4	3.6		2.3	97.7	
PHF	.563	.625	.792	.877	.583	.910	.500	.866	.875

Accurate Counts

978-664-2565

N/S Street : Sunnyside Avenue
E/W Street : Broadway
City/State : Arlington, MA
Weather : Clear

File Name : 864100S1
Site Code : 864100S1
Start Date : 6/13/2020
Page No : 6



Accurate Counts

978-664-2565

N/S Street : Sunnyside Avenue
E/W Street : Broadway
City/State : Arlington, MA
Weather : Clear

File Name : 864100S1
Site Code : 864100S1
Start Date : 6/13/2020

Groups Printed- Trucks

	Sunnyside Ave From North		Broadway From East		Broadway From West		
Start Time	Left	Right	Thru	Right	Left	Thru	Int. Total
11:00 AM	0	0	3	0	0	2	5
11:15 AM	0	0	1	0	0	0	1
11:30 AM	0	0	1	0	0	4	5
11:45 AM	0	0	1	0	0	2	3
Total	0	0	6	0	0	8	14
12:00 PM	0	0	1	0	0	3	4
12:15 PM	0	0	3	0	0	5	8
12:30 PM	0	0	1	0	0	0	1
12:45 PM	0	0	6	0	0	2	8
Total	0	0	11	0	0	10	21
01:00 PM	0	0	0	0	0	1	1
01:15 PM	0	0	4	0	0	1	5
01:30 PM	0	0	3	0	0	3	6
01:45 PM	0	0	3	0	0	2	5
Total	0	0	10	0	0	7	17
Grand Total	0	0	27	0	0	25	52
Apprch %	0	0	100	0	0	100	
Total %	0	0	51.9	0	0	48.1	

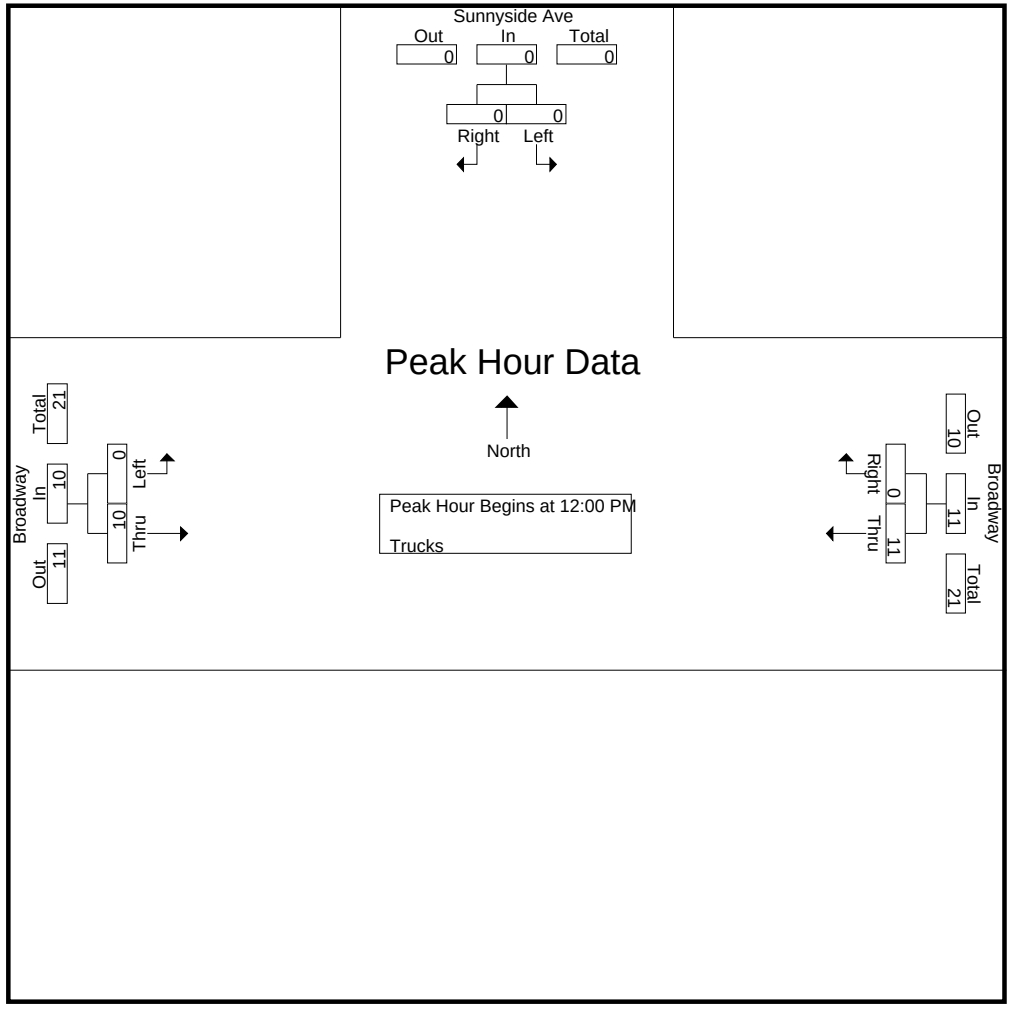
	Sunnyside Ave From North			Broadway From East			Broadway From West			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 12:00 PM										
12:00 PM	0	0	0	1	0	1	0	3	3	4
12:15 PM	0	0	0	3	0	3	0	**5**	**5**	**8**
12:30 PM	0	0	0	1	0	1	0	0	0	1
12:45 PM	0	0	0	**6**	0	**6**	0	2	2	8
Total Volume	0	0	0	11	0	11	0	10	10	21
% App. Total	0	0		100	0		0	100		
PHF	.000	.000	.000	.458	.000	.458	.000	.500	.500	.656

Accurate Counts

978-664-2565

N/S Street : Sunnyside Avenue
E/W Street : Broadway
City/State : Arlington, MA
Weather : Clear

File Name : 864100S1
Site Code : 864100S1
Start Date : 6/13/2020
Page No : 8



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

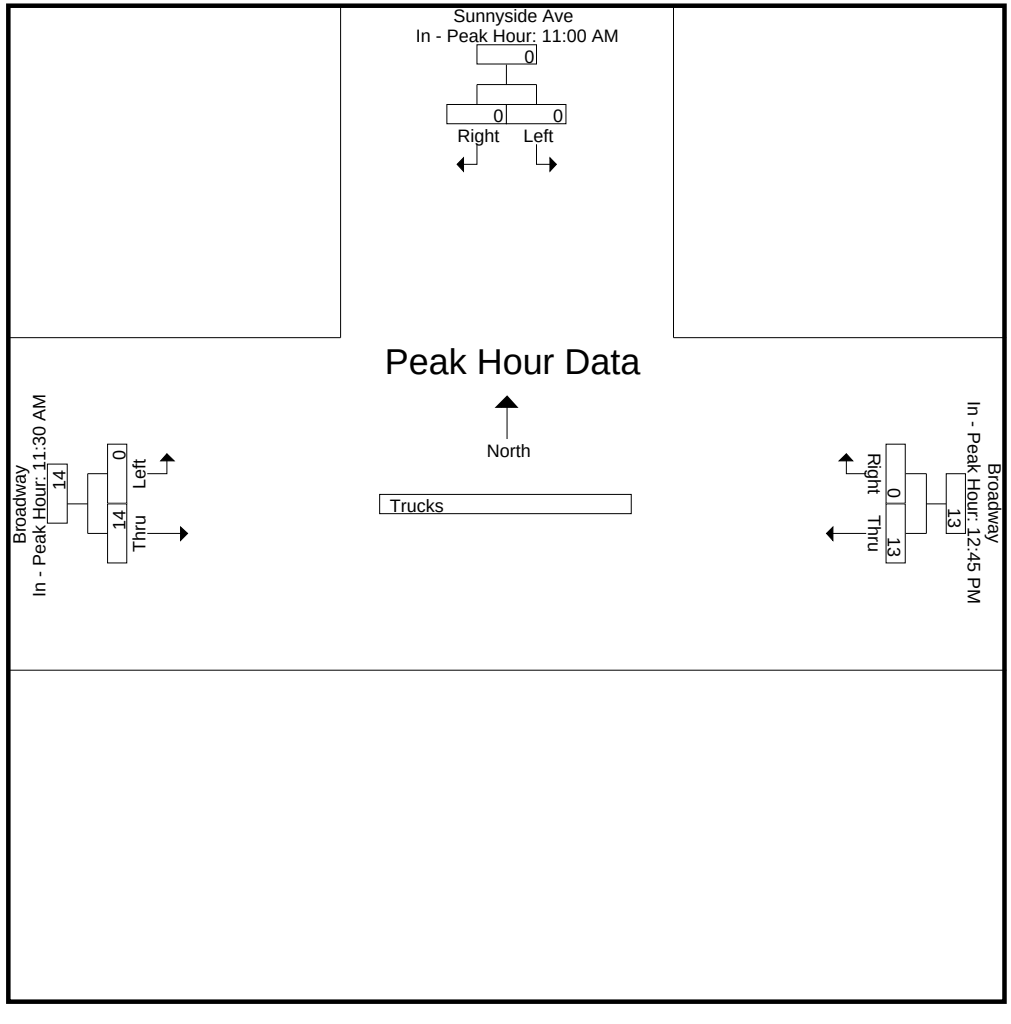
	11:00 AM			12:45 PM			11:30 AM		
+0 mins.	0	0	0	**6**	0	**6**	0	4	4
+15 mins.	0	0	0	0	0	0	0	2	2
+30 mins.	0	0	0	4	0	4	0	3	3
+45 mins.	0	0	0	3	0	3	0	**5**	**5**
Total Volume	0	0	0	13	0	13	0	14	14
% App. Total	0	0		100	0		0	100	
PHF	.000	.000	.000	.542	.000	.542	.000	.700	.700

Accurate Counts

978-664-2565

N/S Street : Sunnyside Avenue
E/W Street : Broadway
City/State : Arlington, MA
Weather : Clear

File Name : 864100S1
Site Code : 864100S1
Start Date : 6/13/2020
Page No : 9



Accurate Counts

978-664-2565

N/S Street : Sunnyside Avenue
E/W Street : Broadway
City/State : Arlington, MA
Weather : Clear

File Name : 864100S1
Site Code : 864100S1
Start Date : 6/13/2020

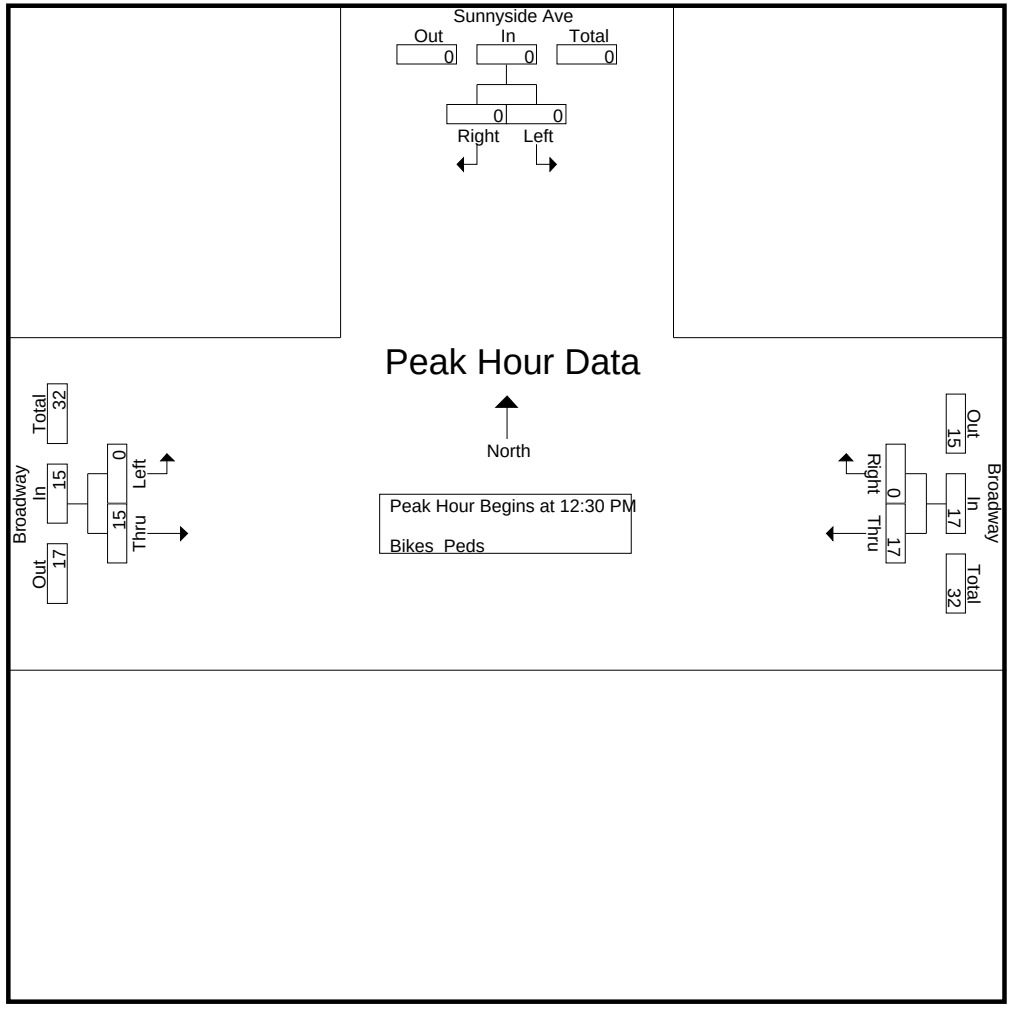
Groups Printed- Bikes Peds

	Sunnyside Ave From North			Broadway From East			Broadway From West					
Start Time	Left	Right	Peds	Thru	Right	Peds	Left	Thru	Peds	Exclu. Total	Inclu. Total	Int. Total
11:00 AM	0	0	5	5	0	0	0	3	0	5	8	13
11:15 AM	0	1	7	1	0	0	0	1	0	7	3	10
11:30 AM	0	0	7	1	0	0	0	3	0	7	4	11
11:45 AM	0	0	8	2	0	0	0	2	0	8	4	12
Total	0	1	27	9	0	0	0	9	0	27	19	46
12:00 PM	0	0	5	2	0	0	0	6	1	6	8	14
12:15 PM	0	0	3	1	0	0	0	5	0	3	6	9
12:30 PM	0	0	8	6	0	2	0	1	0	10	7	17
12:45 PM	0	0	3	1	0	0	0	5	1	4	6	10
Total	0	0	19	10	0	2	0	17	2	23	27	50
01:00 PM	0	0	5	6	0	0	0	5	0	5	11	16
01:15 PM	0	0	3	4	0	1	0	4	1	5	8	13
01:30 PM	0	0	3	3	0	0	0	3	0	3	6	9
01:45 PM	0	0	1	4	0	0	0	2	0	1	6	7
Total	0	0	12	17	0	1	0	14	1	14	31	45
Grand Total	0	1	58	36	0	3	0	40	3	64	77	141
Apprch %	0	100		100	0		0	100				
Total %	0	1.3		46.8	0		0	51.9		45.4	54.6	

	Sunnyside Ave From North			Broadway From East			Broadway From West			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 12:30 PM										
12:30 PM	0	0	0	**6**	0	**6**	0	1	1	7
12:45 PM	0	0	0	1	0	1	0	**5**	**5**	6
01:00 PM	0	0	0	6	0	6	0	5	5	**11**
01:15 PM	0	0	0	4	0	4	0	4	4	8
Total Volume	0	0	0	17	0	17	0	15	15	32
% App. Total	0	0		100	0		0	100		
PHF	.000	.000	.000	.708	.000	.708	.000	.750	.750	.727

N/S Street : Sunnyside Avenue
E/W Street : Broadway
City/State : Arlington, MA
Weather : Clear

File Name : 864100S1
Site Code : 864100S1
Start Date : 6/13/2020
Page No : 11



Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

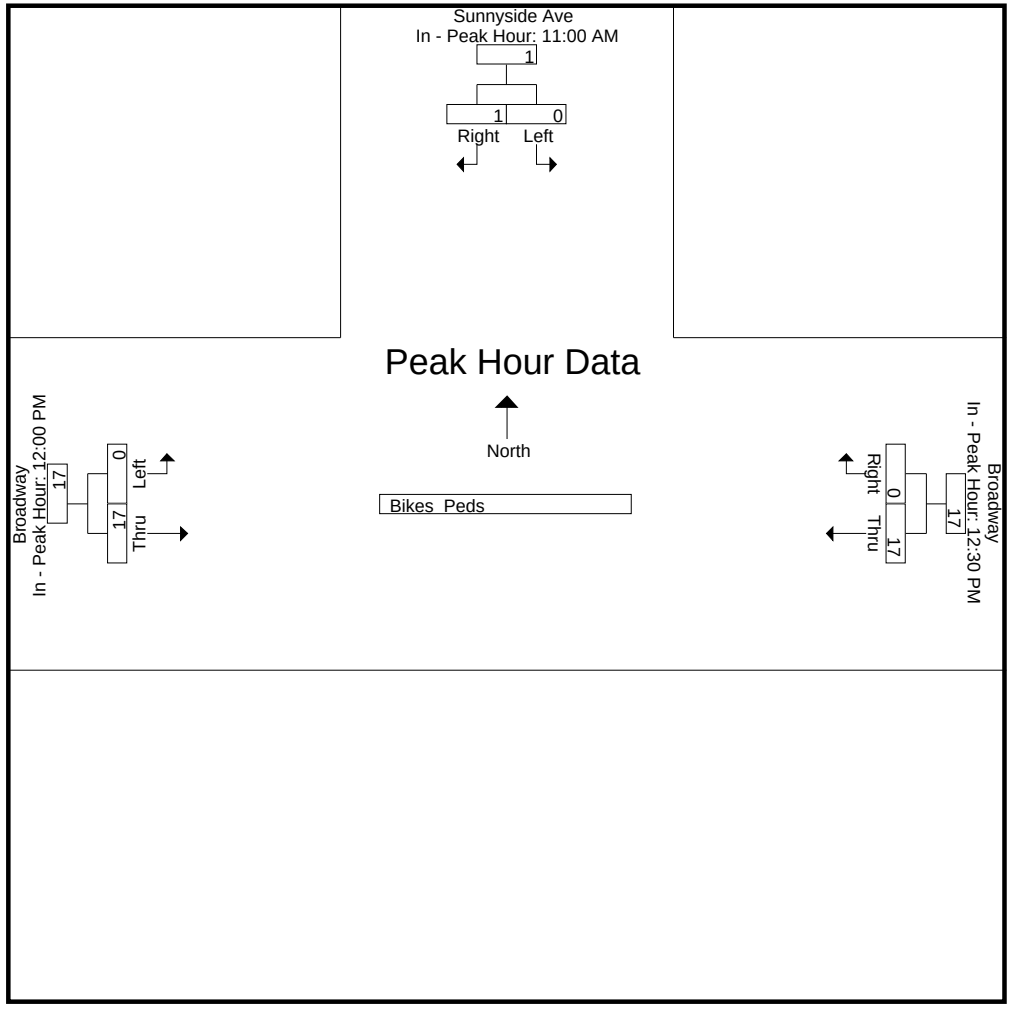
	11:00 AM			12:30 PM			12:00 PM		
+0 mins.	0	0	0	**6**	0	**6**	0	**6**	**6**
+15 mins.	0	**1**	**1**	1	0	1	0	5	5
+30 mins.	0	0	0	6	0	6	0	1	1
+45 mins.	0	0	0	4	0	4	0	5	5
Total Volume	0	1	1	17	0	17	0	17	17
% App. Total	0	100		100	0		0	100	
PHF	.000	.250	.250	.708	.000	.708	.000	.708	.708

Accurate Counts

978-664-2565

N/S Street : Sunnyside Avenue
E/W Street : Broadway
City/State : Arlington, MA
Weather : Clear

File Name : 864100S1
Site Code : 864100S1
Start Date : 6/13/2020
Page No : 12



COVID-19 ADJUSTMENT CALCULATIONS

Route 16 at Broadway Volumes

Growth; 4 Years at 0.5% = 1.02
Seasonal Adjustment = 1.00 (Above Average Month Conditions)

Entering from the West:

EB LT = $189 \times 1.02 \times 1.00 = 192.8 \approx 193$
EB TH = $296 \times 1.02 \times 1.00 = 301.9 \approx 302$
EB RT = $45 \times 1.02 \times 1.00 = 45.9 \approx 46$

Subtotal = $193 + 302 + 46 = 541$

Exiting to the West:

SB RT = 130 $130 \times 1.02 \times 1.00 = 132.6 \approx 133$
WB TH = $272 \times 1.02 \times 1.00 = 277.4 \approx 277$
NB LT = $32 \times 1.02 \times 1.00 = 32.64 \approx 33$

Subtotal = $133 + 277 + 33 = 443$

Total = $\mathbf{541 + 443 = 984}$

Broadway at Sunnyside Avenue Volumes

Exiting to the East:

EB TH = 274
SB LT = 7

Subtotal = $274 + 7 = 281$

Entering from the East:

WB TH = 186
WB RT = 13

Subtotal = $186 + 13 = 199$

Total = $\mathbf{281 + 199 = 480}$

$$\textit{Covid-19 Growth Factor} = \frac{\mathbf{984}}{\mathbf{480}} = \mathbf{2.05}$$

Massachusetts Highway Department
Statewide Traffic Data Collection
2019 Weekday Seasonal Factors

Factor Group	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Axle Factor
R1	1.22	1.14	1.12	1.06	1.00	0.96	0.87	0.85	0.96	0.99	1.04	1.12	0.85
R2	0.95	0.96	0.98	0.97	0.97	0.93	0.97	0.94	0.96	0.90	0.92	0.93	0.96
R3	1.15	1.06	1.07	1.00	0.89	0.88	0.89	0.89	0.95	0.92	1.02	1.01	0.97
R4-R7	1.09	1.09	1.11	1.02	0.96	0.92	0.89	0.89	0.99	0.98	1.09	1.13	0.98
U1-Boston	1.03	1.01	0.98	0.94	0.94	0.92	0.95	0.93	0.94	0.94	0.97	1.04	0.96
U1-Essex	1.09	1.06	1.03	0.99	0.94	0.90	0.88	0.86	0.93	0.94	0.99	1.06	0.93
U1-Southeast	1.06	1.05	1.01	0.97	0.95	0.93	0.93	0.90	0.94	0.94	0.98	1.04	0.98
U1-West	1.19	1.14	1.09	0.95	0.92	0.89	0.89	0.86	0.91	0.95	0.97	1.07	0.84
U1-Worcester	1.02	1.04	0.97	0.94	0.93	0.91	0.95	0.91	0.93	0.92	0.95	1.10	0.88
U2	1.01	1.00	0.94	0.93	0.91	0.89	0.93	0.90	0.90	0.91	0.94	1.02	0.99
U3	1.06	1.03	0.98	0.94	0.93	0.91	0.95	0.91	0.92	0.93	0.97	1.00	0.98
U4-U7	1.01	1.00	0.95	0.92	0.88	0.86	0.92	0.91	0.92	0.94	0.99	1.04	0.99
Rec - East	1.04	1.16	1.12	0.98	0.92	0.88	0.77	0.81	0.94	1.02	1.08	1.12	0.99
Rec - West	1.30	1.23	1.32	1.18	0.95	0.82	0.70	0.69	0.97	0.96	1.16	1.15	0.98

Round off:
0-999 = 10
>1000 = 100

U = Urban
R = Rural

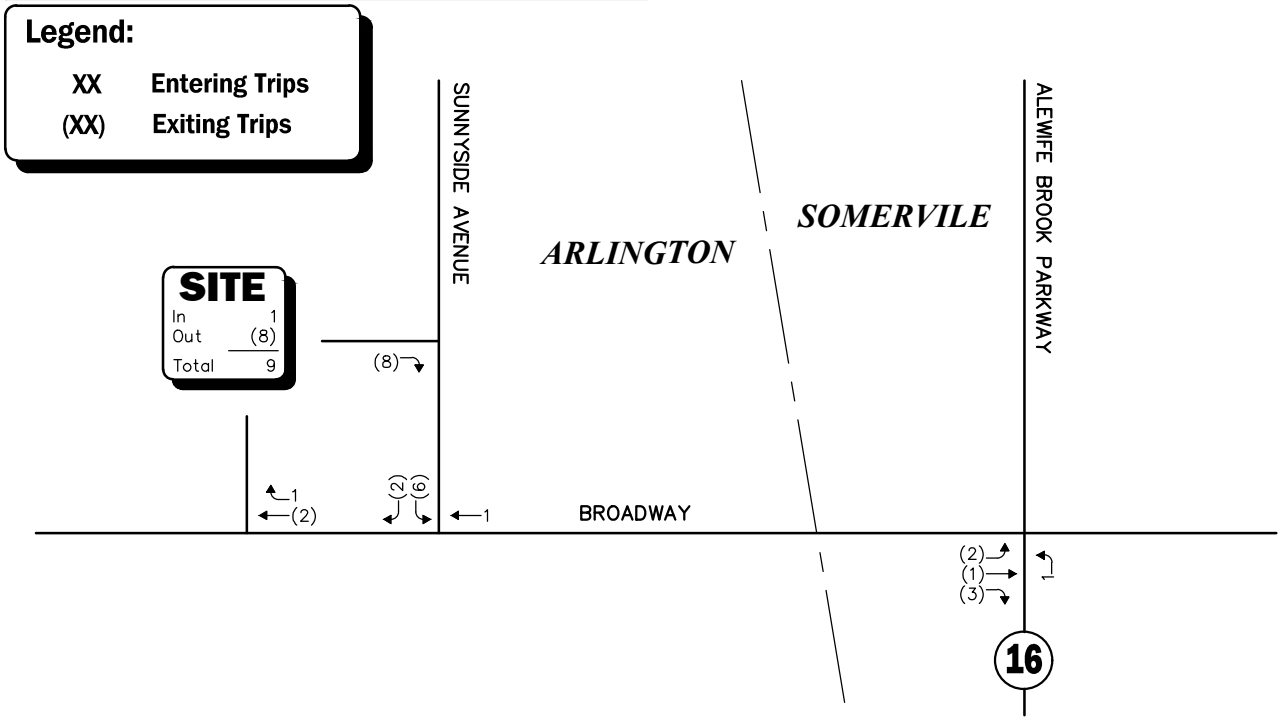
1 - Interstate
2 - Freeway and Expressway
3 - Other Principal Arterial
4 - Minor Arterial
5 - Major Collector
6 - Minor Collector
7 - Local Road and Street

Recreational - East Group - Cape Cod (all towns) including the town of Plymouth south of Route 3A (stations 7014,7079,7080,7090,7091,7092,7093,7094,7095,7096,7097,7108 and 7178), Martha's Vineyard and Nantucket.

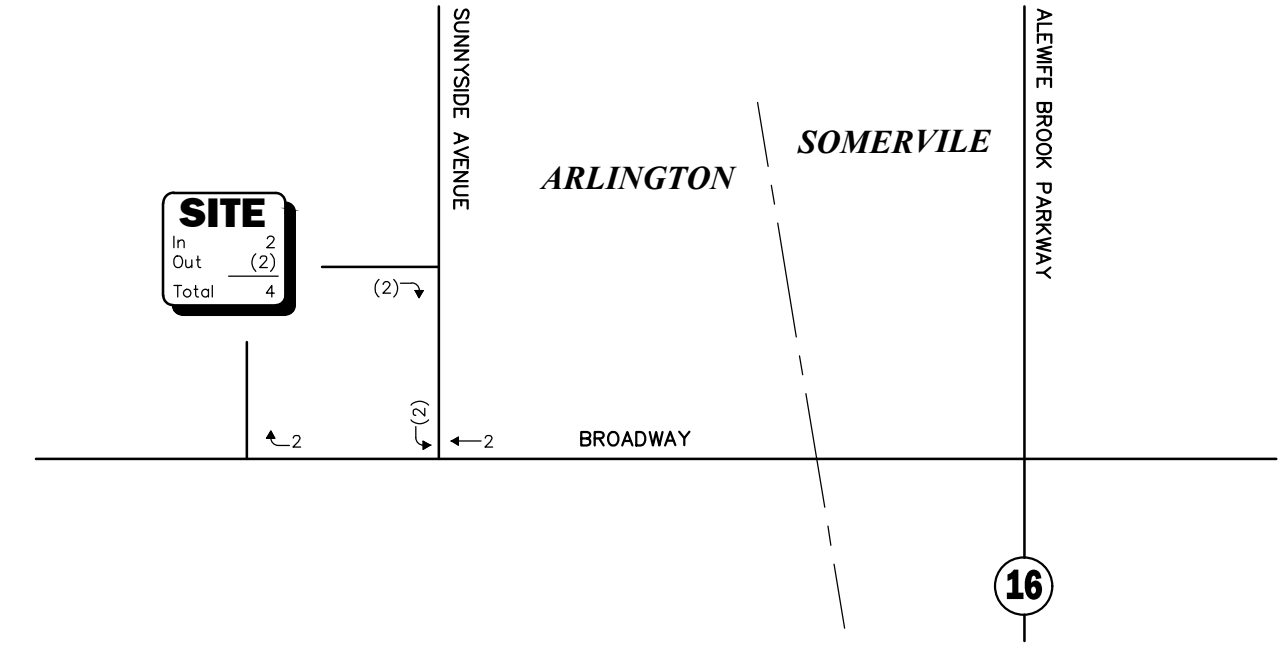
Recreational - West Group - Continuous Stations 2 and 189 including stations 1066,1067,1083,1084,1085,1086,1087,1088,1089,1090,1091,1092,1093,1094,1095,1096,1097,1098,1099,1100,1101,1102,1103,1104,1105,1106,1107,1108,1113, 1114,1116,2196,2197 and 2198.

6/25/2020

WEEKDAY EVENING PEAK HOUR (4:30 - 5:30 PM)



SATURDAY MIDDAY PEAK HOUR (12:00 - 1:00 PM)



Not To Scale

Figure A-1

Existing Office Backfill
Peak Hour Traffic Volumes

Vanasse & Associates inc

Institute of Transportation Engineers (ITE)
Trip Generation, 10 th Edition
Land Use Code (LUC) 710 - General Office Building

Average Vehicle Trips Ends vs: 1,000 Square Feet Gross Floor Area
Independent Variable (X): 7.612

AVERAGE WEEKDAY DAILY

T = 9.74 * (X)
T = 9.74 * 7.612
T = 74.14
T = 74 vehicle trips
with 50% (37 vpd) entering and 50% (37 vpd) exiting.

WEEKDAY EVENING PEAK HOUR

T = 1.15 * (X)
T = 1.15 * 7.612
T = 8.75
T = 9 vehicle trips
with 16% (1 vph) entering and 84% (8 vph) exiting.

SATURDAY DAILY

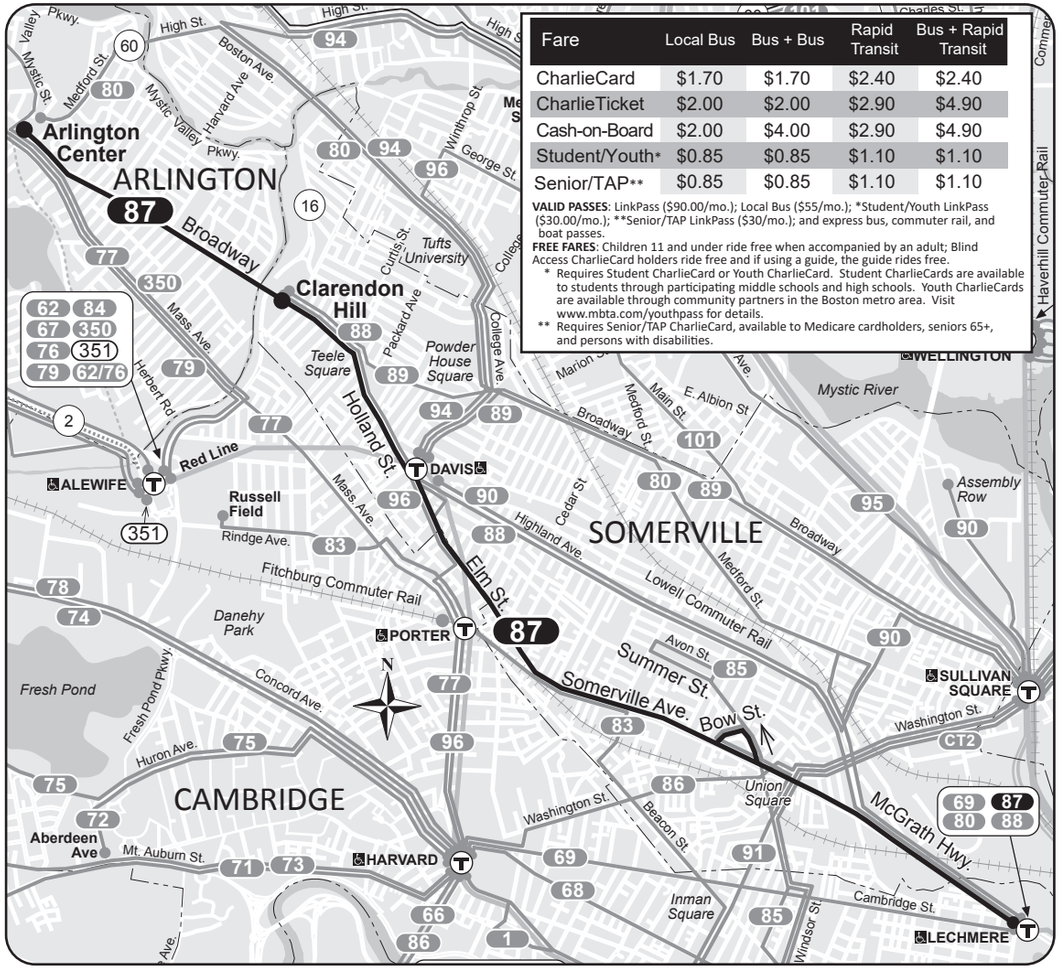
T = 2.21 * (X)
T = 2.21 * 7.612
T = 16.82
T = 18 vehicle trips
with 50% (9 vpd) entering and 50% (9 vpd) exiting.

SATURDAY MIDDAY PEAK HOUR OF GENERATOR

T = 0.53 * (X)
T = 0.53 * 7.612
T = 4.03
T = 4 vehicle trips
with 54% (2 vpd) entering and 46% (2 vpd) exiting.

PUBLIC TRANSPORTATION SCHEDULES

Route 87 Arlington Center or Clarendon Hill - Lechmere Station



Schedule Change

87

Effective June 21, 2020

Arlington Center or Clarendon Hill- Lechmere Station

Serving

- Teele Square
- Davis Station
- Union Square, Somerville
- Red Line
- Green Line

Massachusetts Bay Transportation Authority

massDOT Massachusetts Department of Transportation

Information 617-222-3200 • 1-800-392-6100
(TTY) 617-222-5146 • www.mbta.com

87 Weekday

Inbound				Outbound			
Leave Arlington Center	Lv/Arrive Clarendon Hill	Arrive Davis Station	Arrive Lechmere Station	Leave Lechmere Station	Arrive Davis Station	Arrive Clarendon Hill	Arrive Arlington Center
.....	5:07A	5:10A	5:24A	5:29A	5:40A	5:45A	.....
.....	5:26	5:29	5:43	5:52	6:03	6:08	6:14A
.....	5:49	5:52	6:06	6:23	6:34	6:39	6:45
.....	6:08	6:11	6:25	6:34	6:45	6:50	6:56
6:17A	6:24	6:27	6:50	6:54	7:10	7:16	7:22
6:33	6:40	6:43	7:06	7:13	7:30	7:39	7:47
6:49	6:57	7:01	7:24	7:31	7:49	7:58	8:06
7:06	7:14	7:18	7:48	7:50	8:08	8:17	8:25
7:19	7:27	7:33	8:10	8:09	8:27	8:36	8:44
7:34	7:43	7:50	8:27	8:29	8:47	8:56	9:03
7:53	8:02	8:09	8:46	8:49	9:06	9:14	9:21
8:12	8:21	8:28	9:04	9:16	9:34	9:42	9:49
8:31	8:40	8:47	9:24	9:43	10:01	10:09	10:16
8:50	8:59	9:03	9:36	10:09	10:27	10:35	10:42
9:10	9:17	9:21	9:49	10:38	10:56	11:04	11:11
9:32	9:37	9:40	10:08	11:07	11:25	11:33	11:40
9:56	10:01	10:04	10:32	11:40	11:58	**12:06P**	**12:13P**
10:19	10:24	10:27	10:55				
10:45	10:50	10:53	11:21	**12:10P**	**12:28P**	**12:36**	**12:43**
11:15	11:20	11:23	11:51	**12:35**	**12:53**	**1:01**	**1:08**
11:45	11:50	11:53	**12:21P**	**1:05**	**1:23**	**1:31**	**1:38**
				1:35	**1:53**	**2:01**	**2:08**
12:20P	**12:25P**	**12:28P**	**12:56**	**2:05**	**2:23**	**2:31**	**2:38**
12:50	**12:55**	**12:58**	**1:26**	**2:34**	**2:55**	**3:05**	**3:12**
1:20	**1:25**	**1:28**	**1:56**	**2:58**	**3:19**	**3:29**	**3:36**
1:50	**1:55**	**1:58**	**2:26**	**3:17**	**3:38**	**3:48**	**3:55**
2:15	**2:20**	**2:23**	**2:50**	**3:36**	**3:57**	**4:07**	**4:14**
2:34	**2:39**	**2:43**	**3:09**	**3:56**	**4:17**	**4:27**	**4:34**
2:53	**2:58**	**3:02**	**3:28**	**4:21**	**4:42**	**4:55**	**5:02**
3:15	**3:20**	**3:24**	**3:50**	**4:42**	**5:04**	**5:17**	**5:24**
3:39	**3:44**	**3:48**	**4:14**	**5:04**	**5:26**	**5:39**	**5:46**
3:59	**4:04**	**4:08**	**4:34**	**5:26**	**5:48**	**6:01**	**6:08**
4:19	**4:24**	**4:28**	**4:54**	**5:52**	**6:14**	**6:27**	**6:34**
4:39	**4:44**	**4:48**	**5:18**	**6:21**	**6:43**	**6:53**	**7:00**
5:07	**5:12**	**5:17**	**5:47**	**6:41**	**7:00**	**7:10**	**7:17**
5:35	**5:40**	**5:45**	**6:15**	**7:03**	**7:21**	**7:31**	**7:38**
5:57	**6:02**	**6:07**	**6:35**	**7:29**	**7:43**	**7:52**	**7:59**
6:22	**6:27**	**6:31**	**6:54**	**7:57**	**8:13**	**8:21**	.....
6:45	**6:50**	**6:54**	**7:17**	**8:25**	**8:41**	**8:49**	.....
7:20	**7:25**	**7:29**	**7:52**	**8:55**	**9:11**	**9:19**	.....
7:50	**7:55**	**7:58**	**8:21**	**9:25**	**9:40**	**9:47**	.....
.....	**8:25**	**8:28**	**8:46**	**9:55**	**10:09**	**10:16**	.....
.....	**8:55**	**8:58**	**9:16**	**10:25**	**10:39**	**10:46**	.....
.....	**9:25**	**9:28**	**9:46**	**10:55**	**11:06**	**11:13**	.....
.....	**9:55**	**9:58**	**10:16**	**11:25**	**11:36**	**11:43**	.....
.....	**10:25**	**10:28**	**10:46**	**11:55**	12:06A	12:13A	.....
.....	**10:55**	**10:58**	**11:16**	12:25A	12:36	12:43	.....
.....	**11:25**	**11:28**	**11:42**	12:55	1:06	1:13	.....
.....	12:00M	12:02A	12:16A	w 1:22	1:33	1:40	.....
.....	12:30	12:32	12:46				
.....	1:00	1:02	1:16				

87 Saturday

Inbound				Outbound			
Leave Arlington Center	Lv/Arrive Clarendon Hill	Arrive Davis Station	Arrive Lechmere Station	Leave Lechmere Station	Arrive Davis Station	Arrive Clarendon Hill	Arrive Arlington Center
.....	5:15A	5:18A	5:29A	5:38A	5:50A	5:54A	5:58A
.....	5:45	5:48	5:59	6:10	6:22	6:26	6:30
6:10A	6:15	6:18	6:33	6:40	6:54	6:58	7:02
6:40	6:45	6:48	7:03	7:10	7:24	7:28	7:32
7:10	7:15	7:18	7:33	7:40	7:54	7:58	8:02
7:40	7:45	7:48	8:03	8:10	8:24	8:28	8:33
8:10	8:15	8:18	8:38	8:41	8:57	9:02	9:07
8:40	8:45	8:48	9:08	9:11	9:27	9:32	9:37
9:10	9:15	9:19	9:38	9:35	9:54	10:00	10:05
9:40	9:45	9:49	10:13	10:00	10:19	10:25	10:30
10:10	10:15	10:19	10:43	10:20	10:40	10:46	10:52
10:35	10:40	10:44	11:08	10:50	11:10	11:16	11:22
11:07	11:12	11:16	11:42	11:16	11:36	11:42	11:48
11:35	11:41	11:45	**12:14P**	11:42	12:02	12:08P	12:14P
12:00N	**12:06P**	**12:10P**	**12:39P**	**12:07P**	**12:27P**	**12:33P**	**12:39P**
12:25P	**12:31**	**12:35**	**1:03**	**12:32**	**12:52**	**12:58**	**1:04**
12:50	**12:56**	**1:00**	**1:27**	**12:57**	**1:17**	**1:23**	**1:29**
1:15	**1:20**	**1:23**	**1:50**	**1:22**	**1:42**	**1:48**	**1:54**
1:41	**1:46**	**1:49**	**2:16**	**1:47**	**2:07**	**2:13**	**2:19**
2:06	**2:11**	**2:14**	**2:41**	**2:12**	**2:32**	**2:38**	**2:44**
2:31	**2:36**	**2:39**	**3:06**	**2:37**	**2:57**	**3:03**	**3:09**
2:56	**3:01**	**3:04**	**3:31**	**3:02**	**3:22**	**3:28**	**3:34**
3:21	**3:26**	**3:29**	**3:56**	**3:27**	**3:47**	**3:53**	**3:59**
3:46	**3:51**	**3:54**	**4:21**	**3:52**	**4:12**	**4:18**	**4:24**
4:11	**4:16**	**4:19**	**4:46**	**4:17**	**4:37**	**4:43**	**4:49**
4:36	**4:41**	**4:44**	**5:11**	**4:42**	**5:02**	**5:08**	**5:14**
5:01	**5:06**	**5:09**	**5:35**	**5:07**	**5:27**	**5:33**	**5:39**
5:26	**5:31**	**5:34**	**6:00**	**5:32**	**5:51**	**5:57**	**6:03**
5:51	**5:56**	**5:59**	**6:25**	**5:55**	**6:14**	**6:20**	**6:26**
6:16	**6:21**	**6:24**	**6:50**	**6:18**	**6:37**	**6:43**	**6:49**
6:45	**6:50**	**6:53**	**7:17**	**6:47**	**7:06**	**7:12**	**7:18**
7:22	**7:26**	**7:29**	**7:52**	**7:22**	**7:41**	**7:47**	**7:53**
7:57	**8:01**	**8:04**	**8:27**	**8:05**	**8:23**	**8:29**	.....
.....	**8:40**	**8:43**	**9:00**	**8:50**	**9:07**	**9:13**	.....
.....	**9:20**	**9:23**	**9:39**	**9:30**	**9:46**	**9:52**	.....
.....	**9:57**	**10:00**	**10:16**	**10:05**	**10:21**	**10:27**	.....
.....	**10:32**	**10:35**	**10:51**	**10:40**	**10:55**	**11:01**	.....
.....	**11:07**	**11:10**	**11:24**	**11:15**	**11:28**	**11:34**	.....
.....	**11:40**	**11:43**	**11:57**	**11:50**	12:03A	12:08A	.....
.....	12:20A	12:23A	12:35A	12:30A	12:40	12:45	.....
.....	12:55	12:58	1:10	w 1:20	1:30	1:35	.....

87 Sunday

Inbound			Outbound		
Leave Clarendon Hill	Arrive Davis Station	Arrive Lechmere Station	Leave Lechmere Station	Arrive Davis Station	Arrive Clarendon Hill
6:00A	6:03A	6:16A	6:38A	6:51A	6:57A
7:00	7:03	7:16	7:38	7:51	7:57
8:00	8:03	8:16	8:38	8:51	8:57
8:55	8:58	9:11	9:34	9:47	9:53
9:28	9:32	9:49	10:14	10:30	10:37
10:05	10:09	10:26	10:54	11:12	11:19
10:45	10:49	11:08	11:34	11:53	12:00N
11:25	11:29	11:53			
			12:14P	**12:33P**	**12:40P**
12:05P	**12:09P**	**12:33P**	**12:54**	**1:13**	**1:20**
12:45	**12:49**	**1:13**	**1:34**	**1:53**	**2:00**
1:25	**1:29**	**1:53**	**2:14**	**2:33**	**2:40**
2:05	**2:08**	**2:30**	**2:54**	**3:13**	**3:20**
2:45	**2:48**	**3:10**	**3:34**	**3:53**	**4:00**
3:25	**3:28**	**3:50**	**4:13**	**4:33**	**4:40**
4:05	**4:08**	**4:30**	**4:53**	**5:13**	**5:20**
4:45	**4:48**	**5:10**	**5:34**	**5:54**	**6:01**
5:25	**5:28**	**5:50**	**6:14**	**6:31**	**6:38**
6:05	**6:08**	**6:30**	**6:55**	**7:12**	**7:19**
6:45	**6:48**	**7:10**	**7:36**	**7:50**	**7:57**
7:25	**7:28**	**7:43**	**8:16**	**8:30**	**8:37**
8:05	**8:08**	**8:23**	**8:55**	**9:09**	**9:16**
8:45	**8:48**	**9:03**	**9:35**	**9:49**	**9:56**
9:25	**9:28**	**9:45**	**10:15**	**10:28**	**10:32**
10:05	**10:08**	**10:22**	**10:50**	**11:03**	**11:07**
10:45	**10:48**	**11:02**	**11:30**	**11:43**	**11:47**
11:20	**11:23**	**11:37**	12:00M	12:11A	12:15A
11:55	**11:58**	12:12A	12:35A	12:46	12:50
12:25A	12:28A	12:42	w 1:18	1:29	1:33
12:55	12:58	1:12			

w- Waits for last trolley to arrive at Lechmere Station.

All buses are accessible to persons with disabilities

Fares on map side.

Spring & Summer 2020 Holidays
4/20: see Weekday; 5/25: see Sunday
7/3: see Saturday; 7/4: see Sunday

Route 87
Arlington Ctr or Clarendon Hill - Lechmere Sta.

MASSDOT CRASH RATE WORKSHEETS AND HIGH CRASH LOCATION MAPPING

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Somerville COUNT DATE : Nov-16

DISTRICT : 4 UNSIGNALIZED : SIGNALIZED : X

~ INTERSECTION DATA ~

MAJOR STREET : Alewife Brook Parkway

MINOR STREET(S) : Broadway

INTERSECTION DIAGRAM (Label Approaches)

↑ *North*

PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	NB	SB	EB	WB		
PEAK HOURLY VOLUMES (PM) :	972	994	576	433		**2,975**

" K " FACTOR : **0.090** INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **33,056**

TOTAL # OF CRASHES : 50 # OF YEARS : 5 AVERAGE # OF CRASHES PER YEAR (**A**) : **10.00**

CRASH RATE CALCULATION : **0.83** RATE = $\frac{(A * 1{,}000{,}000)}{(V * 365)}$

Comments : Above Statewide and District Crash Rates

Project Title & Date: Proposed Marijuana Dispensary

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Arlington COUNT DATE : Jun-20

DISTRICT : 4 UNSIGNALIZED : X SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : Broadway

MINOR STREET(S) : Sunnyside Avenue

INTERSECTION DIAGRAM (Label Approaches)

↑ *North*

PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	SB	EB	WB			
PEAK HOURLY VOLUMES (PM) :	24	583	443			**1,050**

" K " FACTOR : **0.090** INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **11,667**

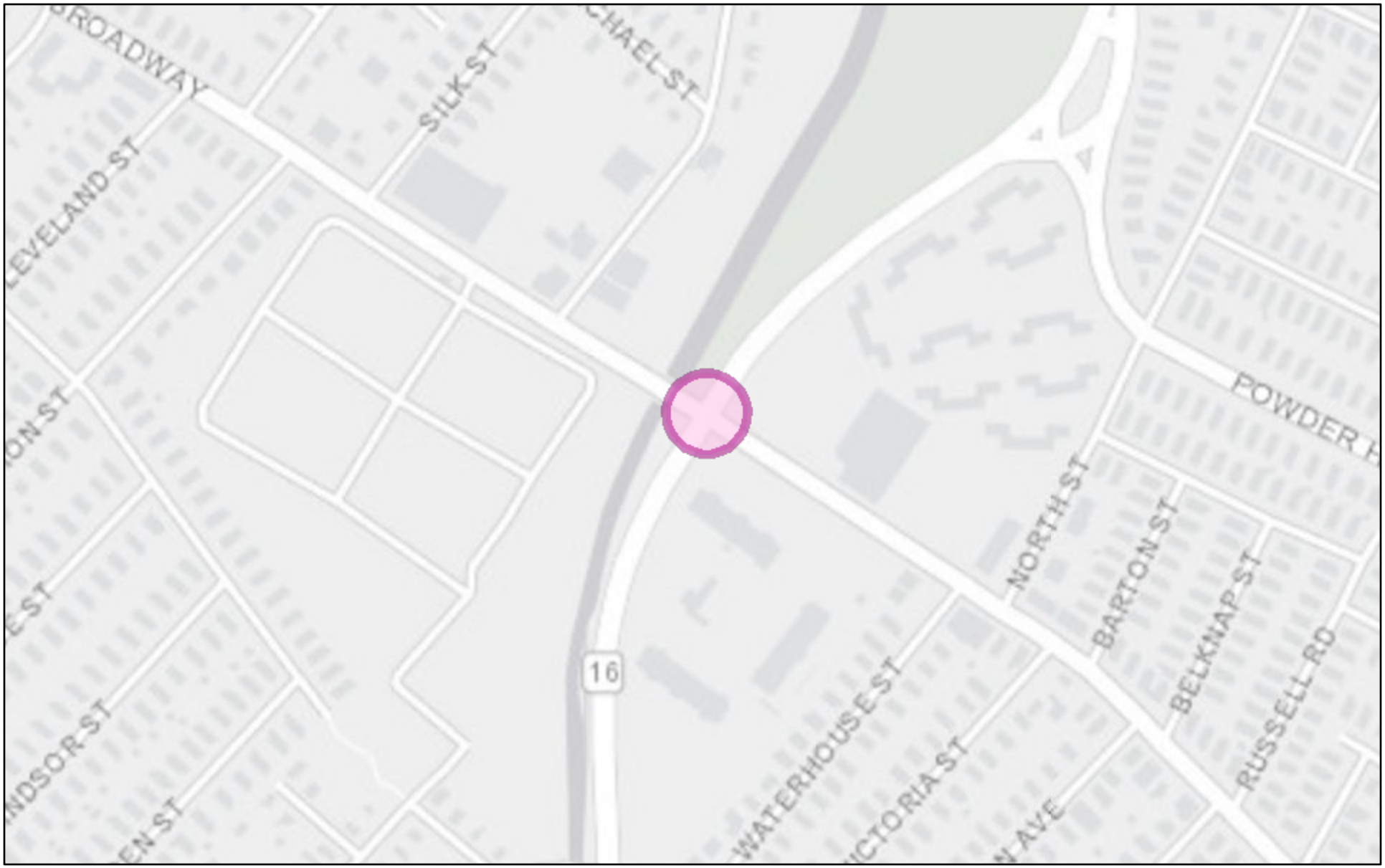
TOTAL # OF CRASHES : 4 # OF YEARS : 5 AVERAGE # OF CRASHES PER YEAR (**A**) : **0.80**

CRASH RATE CALCULATION : **0.19** RATE = $\frac{(A * 1{,}000{,}000)}{(V * 365)}$

Comments : Below Statewide and District Crash Rates

Project Title & Date: Proposed Marijuana Dispensary

GeoDOT Map



6/23/2020, 10:25:55 AM

2015-2017 HSIP Cluster

1:4,514

0 0.03 0.06 0.11 mi

0 0.04 0.09 0.18 km

GENERAL BACKGROUND TRAFFIC GROWTH

34 North Street

Clarendon Hill Redevelopment

Somerville, Massachusetts

Traffic Impact & Access Study

Prepared For:

Gate Residential

Prepared by:

Design Consultants, Inc.

March 2017

Revised September 2019

C. FUTURE NO-BUILD CONDITIONS

C1. 2026 No-Build Traffic Volumes

Traffic volumes in the study area were projected to the year 2026, which reflects a seven-year planning horizon from the existing year 2019, consistent with the *MassDOT Guidelines*. The traffic conditions for the year 2026 were examined under No-Build conditions independent of the proposed Project, including all existing traffic and new traffic.

Traffic growth on the local roadway network results from multiple factors, most notably land development in the immediate area and growth in the surrounding region. Two techniques are typically used in combination to estimate this growth. The first technique identifies planned and permitted developments in the vicinity of the study area and assigns estimated traffic generated by the proposed developments to the study area network. The second technique applies an annual percentage increase in traffic growth to all traffic volumes under study. This practice accounts for traffic growth due to regional developments beyond the study area or developments that may be proposed but are not yet permitted. Both methods were used and summed together with the existing traffic counts to define the "No-Build" traffic volumes for this study. The "No-Build" traffic volumes for this study are shown in Figure C1.1.

Background Developments

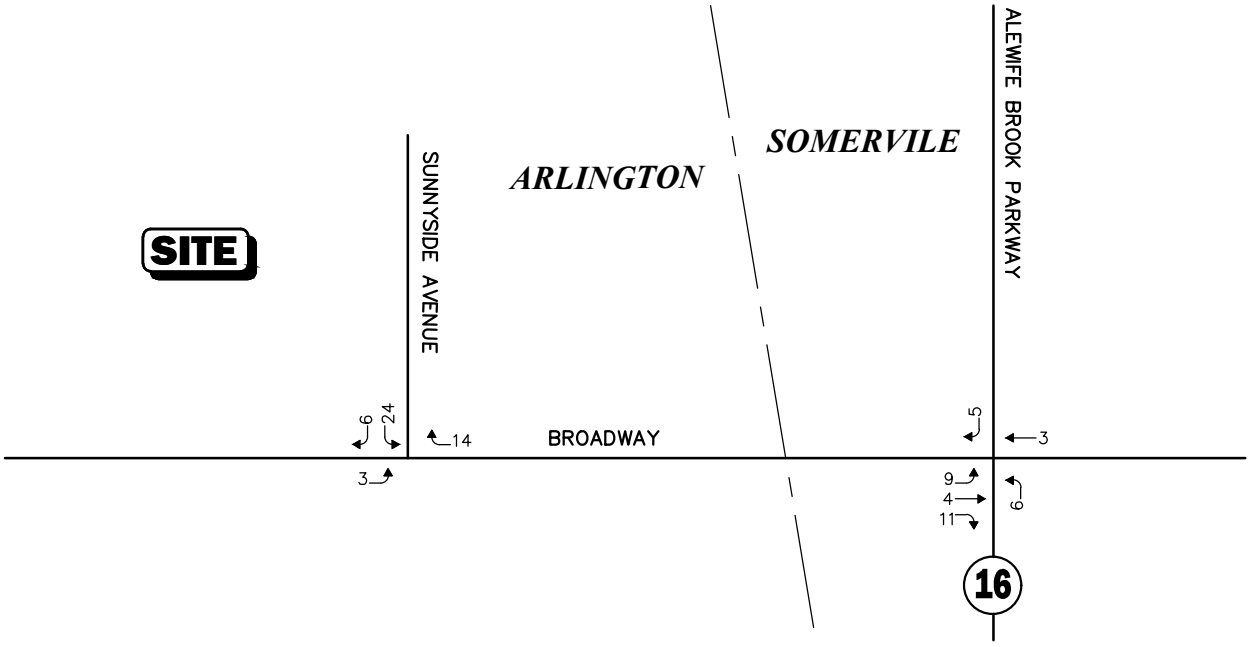
DCI has coordinated with the Planning Board of the City of Somerville and the Central Transportation Planning Staff to determine if there are any upcoming projects in the area will have an impact on the traffic network. There is one proposed project, a hotel at 1154 Broadway, which will add vehicle-trips to the study area. A figure of these trips is attached in Appendix D.

Regional Growth Rate

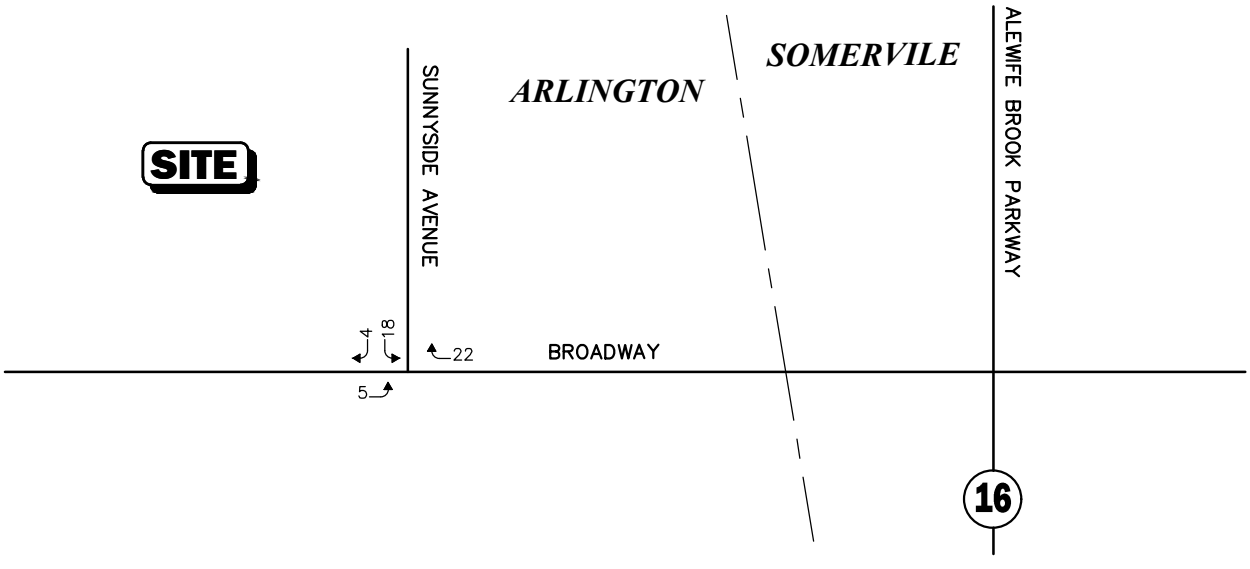
Based on discussions with the City of Somerville, an annual traffic growth rate of 0.25 percent for the area of Somerville that the Project site is located was provided. Due to the location of the Project and the lack of rapid transit in the immediate area, it is expected that vehicular traffic in this area of Somerville will increase in the future. Therefore, a 0.25 percent annual growth rate was applied to project all existing volumes to a seven year design horizon, to the year 2026.

BACKGROUND DEVELOPMENT TRAFFIC-VOLUME NETWORKS

WEEKDAY EVENING PEAK HOUR (4:30 - 5:30 PM)



SATURDAY MIDDAY PEAK HOUR (12:00 - 1:00 PM)



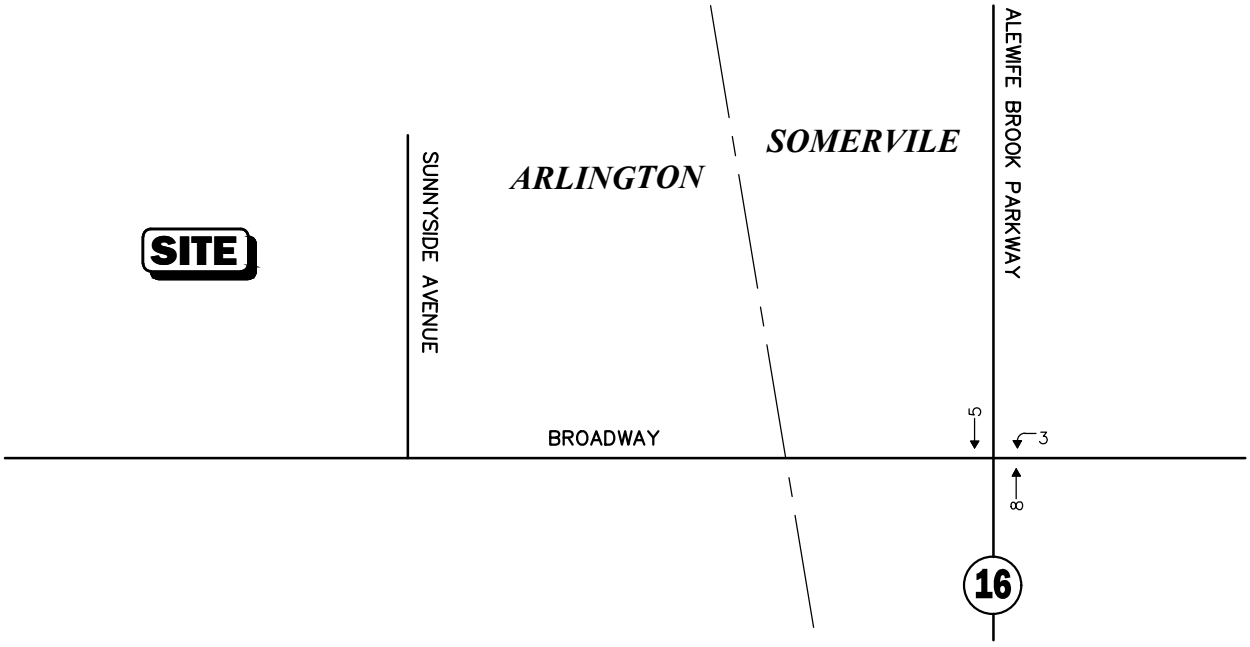
Not To Scale

Figure A-2

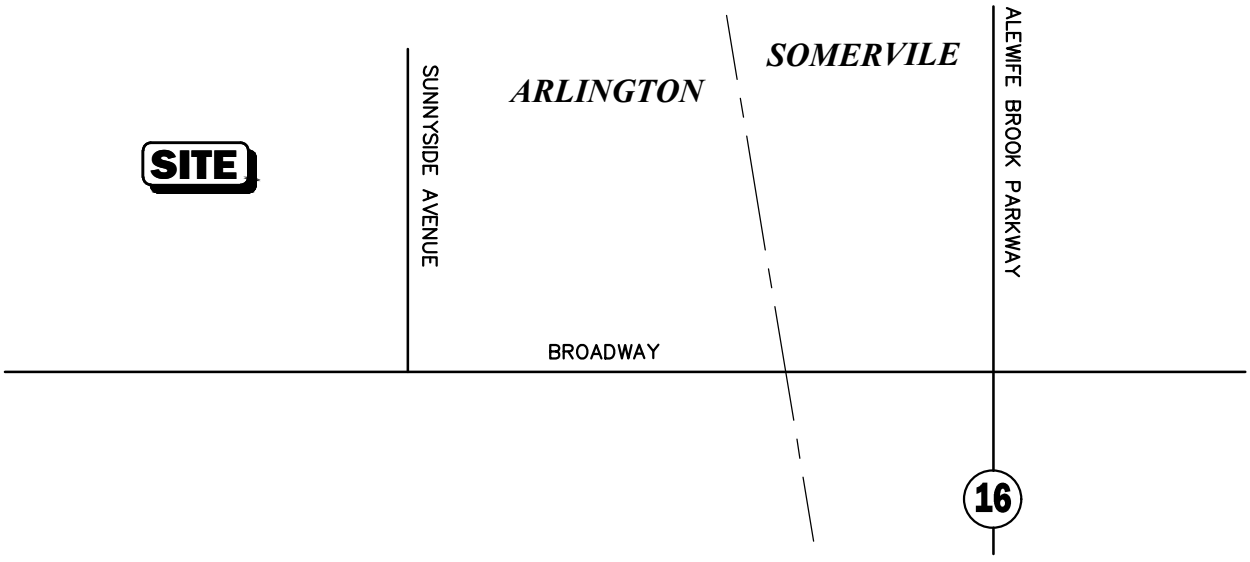
Vanasse & Associates inc

10 Sunnyside Avenue
Mixed-Use Development
Peak Hour Traffic Volumes

WEEKDAY EVENING PEAK HOUR (4:30 - 5:30 PM)



SATURDAY MIDDAY PEAK HOUR (12:00 - 1:00 PM)



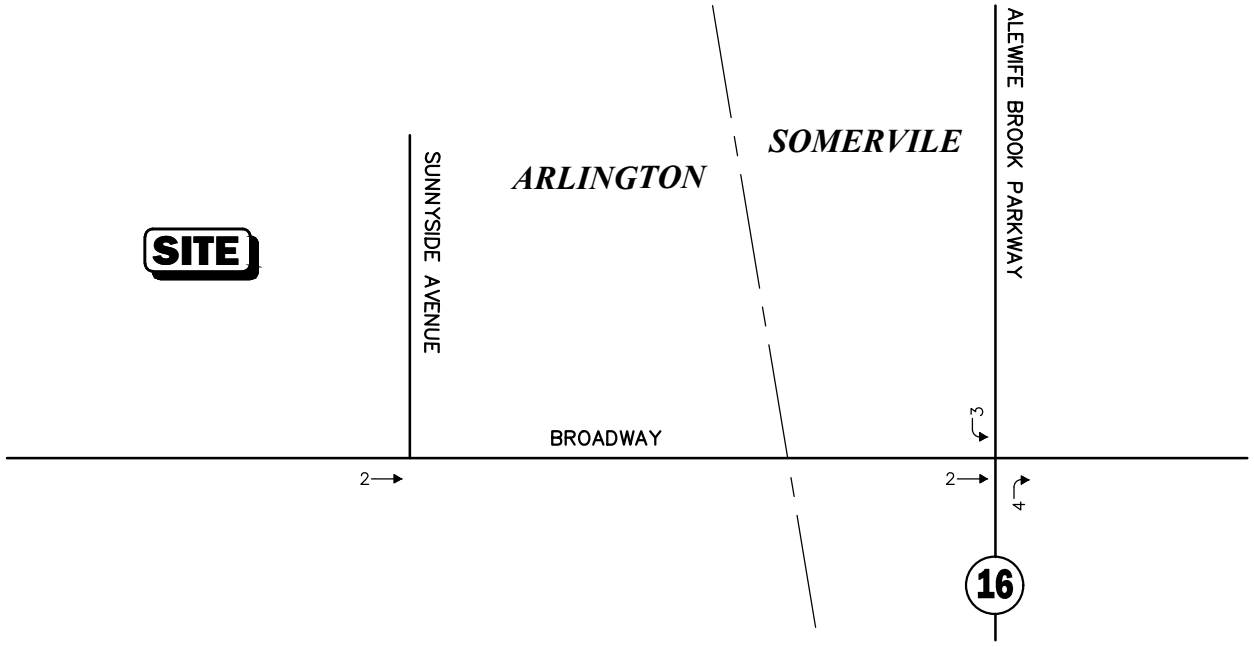
Not To Scale

Figure A-3

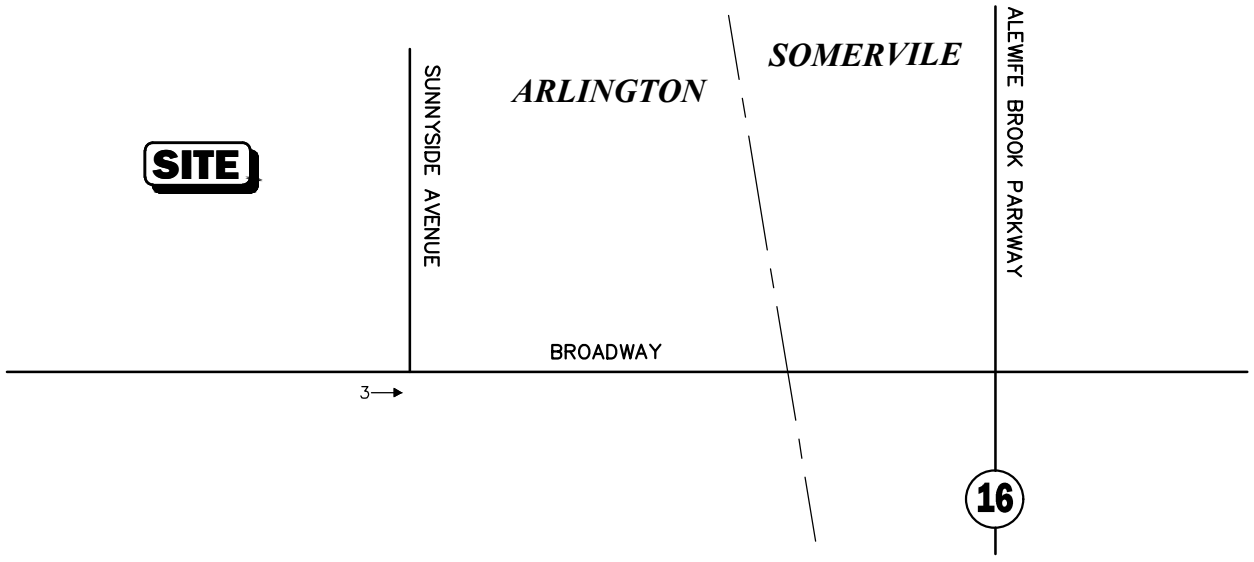
Clarendon Hill
Peak Hour Traffic Volumes

Vanasse & Associates inc

WEEKDAY EVENING PEAK HOUR (4:30 - 5:30 PM)



SATURDAY MIDDAY PEAK HOUR (12:00 - 1:00 PM)



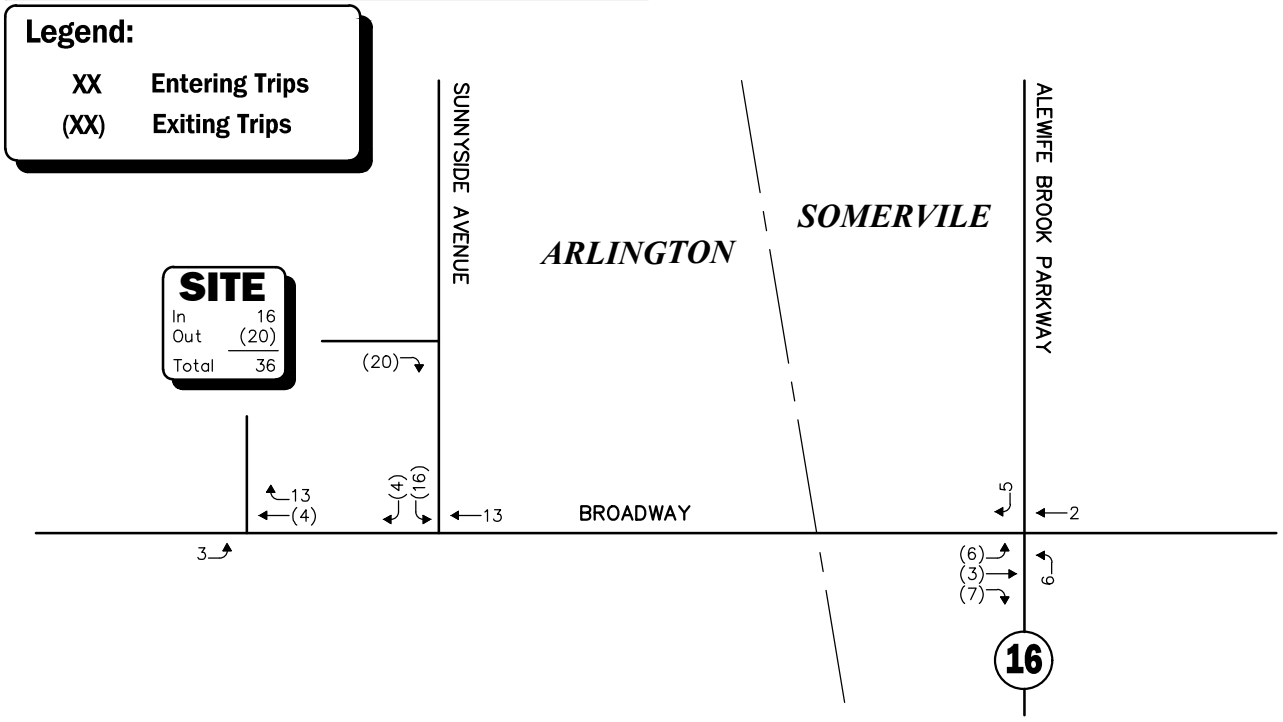
Not To Scale

Figure A-4

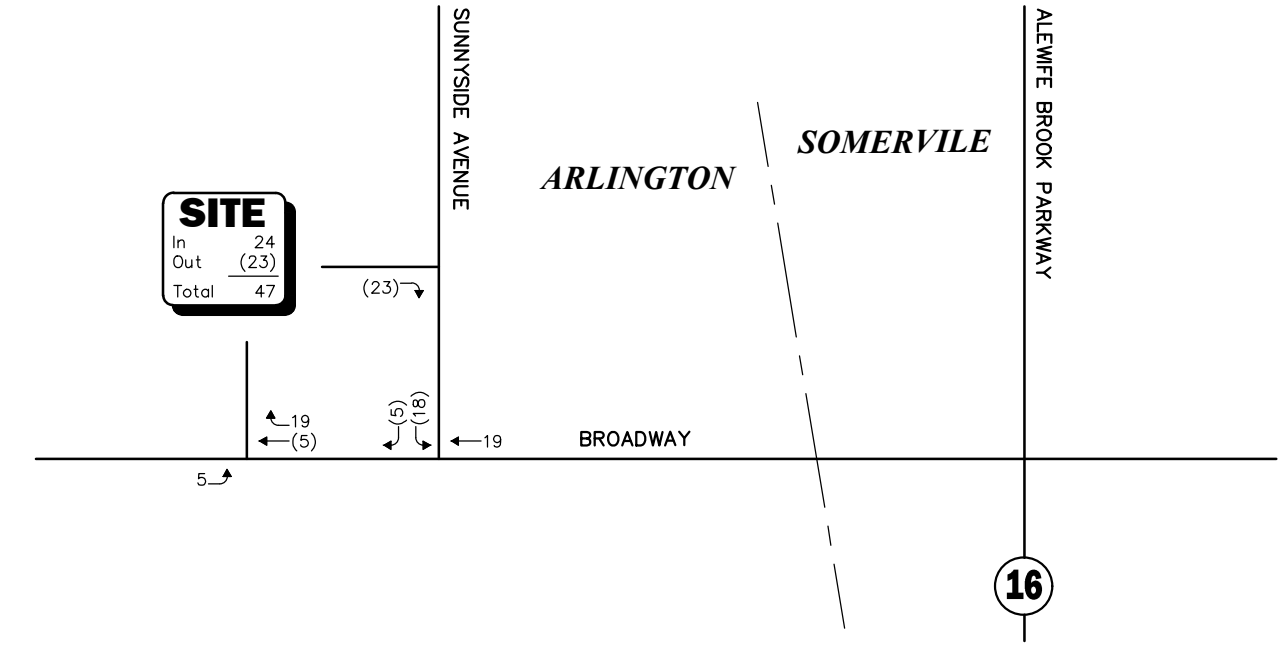
Broadway Hotel
Peak Hour Traffic Volumes

Vanasse & Associates inc

WEEKDAY EVENING PEAK HOUR (4:30 - 5:30 PM)



SATURDAY MIDDAY PEAK HOUR (12:00 - 1:00 PM)



Not To Scale

Figure A-5

Existing Bank Reoccupancy Peak Hour Traffic Volumes

Vanasse & Associates inc

Institute of Transportation Engineers (ITE)
Trip Generation, 10 th Edition
Land Use Code (LUC) 911 - Walk-In Bank

Average Vehicle Trips Ends vs: 1,000 Square Feet Gross Floor Area
Independent Variable (X): 3.000

AVERAGE WEEKDAY DAILY

$$\frac{\text{ITE LUC 911 Weekday Daily Trip Rate}}{\text{ITE LUC 911 Weekday Evening Trip Rate}} = \frac{\text{ITE LUC 912 Weekday Daily Trip Rate}}{\text{ITE LUC 912 Weekday Evening Trip Rate}}$$

$$\frac{(Y)}{12.13} = \frac{100.030}{20.45} \qquad Y = 59.33$$

T = Y * 3.000
T = 178
T = 178 vehicle trips
with 50% (89 vph) entering and 50% (89 vph) exiting.

WEEKDAY EVENING PEAK HOUR OF ADJACENT STREET TRAFFIC

T = 12.13 * (X)
T = 12.13 * 3.000
T = 36.39
T = 36 vehicle trips
with 44% (16 vph) entering and 56% (20 vph) exiting.

SATURDAY MIDDAY PEAK HOUR OF GENERATOR

$$\frac{\text{ITE LUC 911 Saturday Midday Trip Rate}}{\text{ITE LUC 911 Weekday Evening Trip Rate}} = \frac{\text{ITE LUC 912 Saturday Midday Trip Rate}}{\text{ITE LUC 912 Weekday Evening Trip Rate}}$$

$$\frac{(Y)}{12.13} = \frac{26.35}{20.45} \qquad Y = 15.63$$

T = Y * 3.000
T = 46.89
T = 47 vehicle trips
with 51% (24 vph) entering and 49% (23 vph) exiting.

TRIP-GENERATION CALCULATIONS

Institute of Transportation Engineers (ITE)
Trip Generation, 10 th Edition
Land Use Code (LUC) 882 - Marijuana Dispensary

Average Vehicle Trips Ends vs: 1,000 sf of GFA
Independent Variable (X): 3

AVERAGE WEEKDAY DAILY

T = 252.7 * (X)
T = 252.7 * 3
T = 758.10
T = 760.00
T = 760 vehicle trips
with 50% (380 vpd) entering and 50% (380 vpd) exiting.

WEEKDAY EVENING PEAK HOUR OF ADJACENT STREET TRAFFIC

T = 21.83 * (X)
T = 21.83 * 3
T = 65.49
T = 66 vehicle trips
with 50% (33 vph) entering and 50% (33 vph) exiting.

SATURDAY DAILY

T = 259.31 * (X)
T = 259.31 * 3
T = 777.93
T = 778 vehicle trips
with 50% (389 vpd) entering and 50% (389 vpd) exiting.

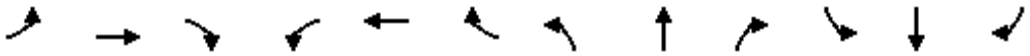
SATURDAY MIDDAY PEAK HOUR OF GENERATOR

T = 36.43 * (X)
T = 36.43 * 3
T = 109.29
T = 109 vehicle trips
with 47% (51 vph) entering and 53% (58 vph) exiting.

CAPACITY ANALYSIS WORKSHEETS

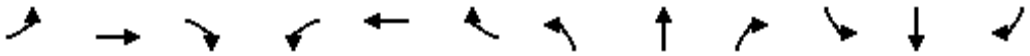
Route 16 at Broadway
Broadway at Sunnyside Avenue
Broadway at the Project Site Driveway
Sunnyside Avenue at the Project Site Driveway

Route 16 at Broadway



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	207	323	52	135	277	21	34	776	163	20	841	133
Future Volume (vph)	207	323	52	135	277	21	34	776	163	20	841	133
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	10	10	10	10	10	10
Storage Length (ft)	0		125	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.979			0.993			0.975			0.980	
Flt Protected	0.950				0.985			0.998			0.999	
Satd. Flow (prot)	1745	1783	0	0	3392	0	0	3279	0	0	3299	0
Flt Permitted	0.160				0.717			0.708			0.817	
Satd. Flow (perm)	294	1783	0	0	2469	0	0	2326	0	0	2698	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			3			21			15	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		175			307			364			295	
Travel Time (s)		4.0			7.0			8.3			6.7	
Peak Hour Factor	0.86	0.86	0.86	0.96	0.96	0.96	0.96	0.96	0.96	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	241	376	60	141	289	22	35	808	170	22	914	145
Shared Lane Traffic (%)												
Lane Group Flow (vph)	241	436	0	0	452	0	0	1013	0	0	1081	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.04	1.04	1.04	1.04	1.04	1.04	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	24.0	24.0		24.0	24.0		24.0	24.0		24.0	24.0	
Total Split (s)	31.0	31.0		26.0	26.0		56.0	56.0		56.0	56.0	
Total Split (%)	23.1%	23.1%		19.4%	19.4%		41.8%	41.8%		41.8%	41.8%	
Maximum Green (s)	25.0	25.0		20.0	20.0		50.0	50.0		50.0	50.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	-2.0			-2.0			-2.0			-2.0	
Total Lost Time (s)	6.0	4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	25.0	27.0			22.0			52.0			52.0	
Actuated g/C Ratio	0.19	0.20			0.16			0.39			0.39	
v/c Ratio	4.46	1.20			1.11			1.11			1.02	
Control Delay	1613.3	158.8			128.3			101.5			73.7	
Queue Delay	0.0	0.0			0.0			0.0			0.0	
Total Delay	1613.3	158.8			128.3			101.5			73.7	
LOS	F	F			F			F			E	
Approach Delay		676.6			128.3			101.5			73.7	
Approach LOS		F			F			F			E	
Queue Length 50th (ft)	~386	~458			~235			~523			~521	
Queue Length 95th (ft)	#495	#626			#348			#661			#660	
Internal Link Dist (ft)		95			227			284			215	
Turn Bay Length (ft)												
Base Capacity (vph)	54	363			407			915			1056	
Starvation Cap Reductn	0	0			0			0			0	
Spillback Cap Reductn	0	0			0			0			0	
Storage Cap Reductn	0	0			0			0			0	
Reduced v/c Ratio	4.46	1.20			1.11			1.11			1.02	

Intersection Summary			
Area Type:	Other		
Cycle Length: 134			
Actuated Cycle Length: 134			
Natural Cycle: 105			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 4.46			
Intersection Signal Delay: 216.7		Intersection LOS: F	
Intersection Capacity Utilization 94.4%		ICU Level of Service F	
Analysis Period (min) 15			

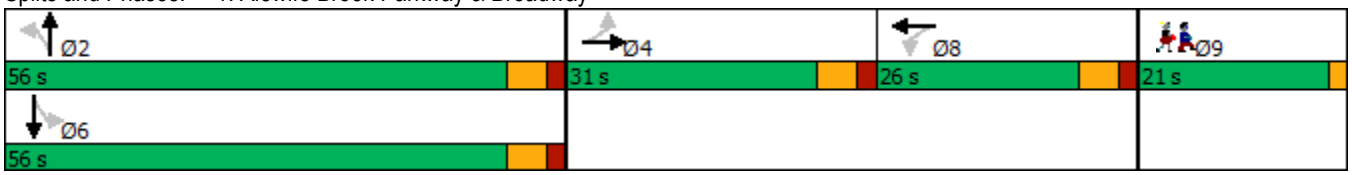
Lane Group	Ø9
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	21.0
Total Split (s)	21.0
Total Split (%)	16%
Maximum Green (s)	19.0
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	Ped
Walk Time (s)	13.0
Flash Dont Walk (s)	6.0
Pedestrian Calls (#/hr)	64
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

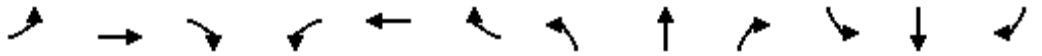
Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

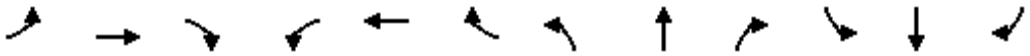
Splits and Phases: 1: Alewife Brook Parkway & Broadway





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	229	343	72	143	292	22	47	812	173	24	876	148
Future Volume (vph)	229	343	72	143	292	22	47	812	173	24	876	148
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	10	10	10	10	10	10
Storage Length (ft)	0		125	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.974			0.993			0.975			0.979	
Flt Protected	0.950				0.985			0.998			0.999	
Satd. Flow (prot)	1745	1774	0	0	3392	0	0	3279	0	0	3295	0
Flt Permitted	0.160				0.703			0.627			0.764	
Satd. Flow (perm)	294	1774	0	0	2421	0	0	2060	0	0	2520	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			3			20			16	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		175			307			364			295	
Travel Time (s)		4.0			7.0			8.3			6.7	
Peak Hour Factor	0.86	0.86	0.86	0.96	0.96	0.96	0.96	0.96	0.96	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	266	399	84	149	304	23	49	846	180	26	952	161
Shared Lane Traffic (%)												
Lane Group Flow (vph)	266	483	0	0	476	0	0	1075	0	0	1139	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.04	1.04	1.04	1.04	1.04	1.04	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	24.0	24.0		24.0	24.0		24.0	24.0		24.0	24.0	
Total Split (s)	31.0	31.0		26.0	26.0		56.0	56.0		56.0	56.0	
Total Split (%)	23.1%	23.1%		19.4%	19.4%		41.8%	41.8%		41.8%	41.8%	
Maximum Green (s)	25.0	25.0		20.0	20.0		50.0	50.0		50.0	50.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	-2.0			-2.0			-2.0			-2.0	
Total Lost Time (s)	6.0	4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	25.0	27.0			22.0			52.0			52.0	
Actuated g/C Ratio	0.19	0.20			0.16			0.39			0.39	
v/c Ratio	4.93	1.33			1.19			1.33			1.15	
Control Delay	1819.5	207.4			156.1			188.9			118.2	
Queue Delay	0.0	0.0			0.0			0.0			0.0	
Total Delay	1819.5	207.4			156.1			188.9			118.2	
LOS	F	F			F			F			F	
Approach Delay		779.9			156.1			188.9			118.2	
Approach LOS		F			F			F			F	
Queue Length 50th (ft)	~431	~543			~262			~634			~610	
Queue Length 95th (ft)	#544	#713			#377			#773			#750	
Internal Link Dist (ft)		95			227			284			215	
Turn Bay Length (ft)												
Base Capacity (vph)	54	363			399			811			987	
Starvation Cap Reductn	0	0			0			0			0	
Spillback Cap Reductn	0	0			0			0			0	
Storage Cap Reductn	0	0			0			0			0	
Reduced v/c Ratio	4.93	1.33			1.19			1.33			1.15	

Intersection Summary			
Area Type:	Other		
Cycle Length: 134			
Actuated Cycle Length: 134			
Natural Cycle: 105			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 4.93			
Intersection Signal Delay: 289.6		Intersection LOS: F	
Intersection Capacity Utilization 107.6%		ICU Level of Service G	
Analysis Period (min) 15			

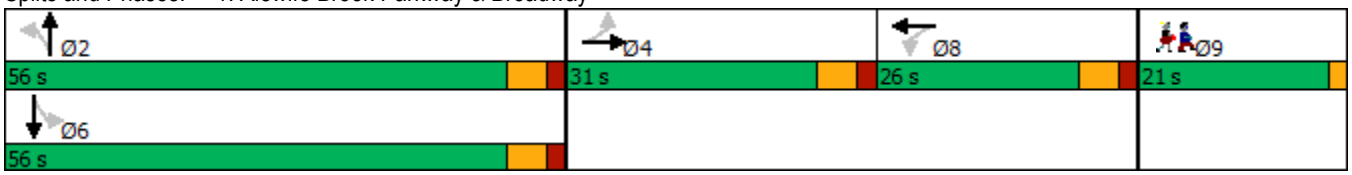
Lane Group	Ø9
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	21.0
Total Split (s)	21.0
Total Split (%)	16%
Maximum Green (s)	19.0
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	Ped
Walk Time (s)	13.0
Flash Dont Walk (s)	6.0
Pedestrian Calls (#/hr)	64
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

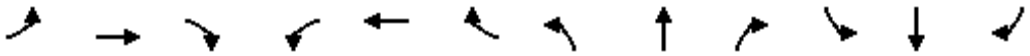
Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

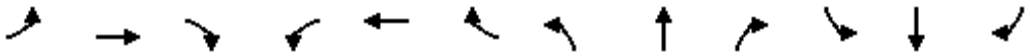
Splits and Phases: 1: Alewife Brook Parkway & Broadway





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	233	345	76	143	295	22	52	812	173	24	876	153
Future Volume (vph)	233	345	76	143	295	22	52	812	173	24	876	153
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	10	10	10	10	10	10
Storage Length (ft)	0		125	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.973			0.993			0.975			0.978	
Flt Protected	0.950				0.985			0.998			0.999	
Satd. Flow (prot)	1745	1773	0	0	3392	0	0	3279	0	0	3292	0
Flt Permitted	0.160				0.702			0.609			0.762	
Satd. Flow (perm)	294	1773	0	0	2417	0	0	2001	0	0	2511	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			3			20			17	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		175			307			364			295	
Travel Time (s)		4.0			7.0			8.3			6.7	
Peak Hour Factor	0.86	0.86	0.86	0.96	0.96	0.96	0.96	0.96	0.96	0.92	0.92	0.92
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	271	401	88	149	307	23	54	846	180	26	952	166
Shared Lane Traffic (%)												
Lane Group Flow (vph)	271	489	0	0	479	0	0	1080	0	0	1144	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		11			11			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.04	1.04	1.04	1.04	1.04	1.04	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	24.0	24.0		24.0	24.0		24.0	24.0		24.0	24.0	
Total Split (s)	31.0	31.0		26.0	26.0		56.0	56.0		56.0	56.0	
Total Split (%)	23.1%	23.1%		19.4%	19.4%		41.8%	41.8%		41.8%	41.8%	
Maximum Green (s)	25.0	25.0		20.0	20.0		50.0	50.0		50.0	50.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	-2.0			-2.0			-2.0			-2.0	
Total Lost Time (s)	6.0	4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		Min	Min		Min	Min	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	25.0	27.0			22.0			52.0			52.0	
Actuated g/C Ratio	0.19	0.20			0.16			0.39			0.39	
v/c Ratio	5.02	1.35			1.20			1.37			1.16	
Control Delay	1860.8	215.4			158.8			207.9			121.5	
Queue Delay	0.0	0.0			0.0			0.0			0.0	
Total Delay	1860.8	215.4			158.8			207.9			121.5	
LOS	F	F			F			F			F	
Approach Delay		802.1			158.8			207.9			121.5	
Approach LOS		F			F			F			F	
Queue Length 50th (ft)	~440	~554			~265			~650			~616	
Queue Length 95th (ft)	#553	#726			#381			#788			#756	
Internal Link Dist (ft)		95			227			284			215	
Turn Bay Length (ft)												
Base Capacity (vph)	54	362			399			788			984	
Starvation Cap Reductn	0	0			0			0			0	
Spillback Cap Reductn	0	0			0			0			0	
Storage Cap Reductn	0	0			0			0			0	
Reduced v/c Ratio	5.02	1.35			1.20			1.37			1.16	

Intersection Summary			
Area Type:	Other		
Cycle Length: 134			
Actuated Cycle Length: 134			
Natural Cycle: 135			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 5.02			
Intersection Signal Delay: 302.9		Intersection LOS: F	
Intersection Capacity Utilization 108.4%		ICU Level of Service G	
Analysis Period (min) 15			

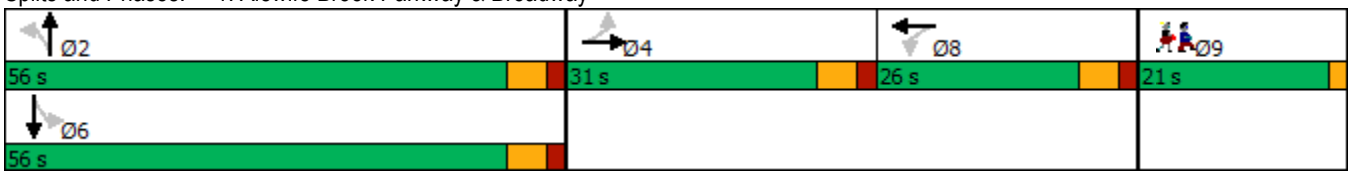
Lane Group	Ø9
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	21.0
Total Split (s)	21.0
Total Split (%)	16%
Maximum Green (s)	19.0
Yellow Time (s)	2.0
All-Red Time (s)	0.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	Ped
Walk Time (s)	13.0
Flash Dont Walk (s)	6.0
Pedestrian Calls (#/hr)	64
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Alewife Brook Parkway & Broadway



Broadway at Sunnyside Avenue

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	21	562	417	27	20	12
Future Vol, veh/h	21	562	417	27	20	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	84	84	75	75
Heavy Vehicles, %	0	1	2	0	0	0
Mvmt Flow	23	611	496	32	27	16

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	528	0	-	0	1169	512
Stage 1	-	-	-	-	512	-
Stage 2	-	-	-	-	657	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1049	-	-	-	215	566
Stage 1	-	-	-	-	606	-
Stage 2	-	-	-	-	519	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1049	-	-	-	208	566
Mov Cap-2 Maneuver	-	-	-	-	208	-
Stage 1	-	-	-	-	586	-
Stage 2	-	-	-	-	519	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	20.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1049	-	-	-	273
HCM Lane V/C Ratio	0.022	-	-	-	0.156
HCM Control Delay (s)	8.5	0	-	-	20.6
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.5

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	12	533	392	21	20	12
Future Vol, veh/h	12	533	392	21	20	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	89	89	63	63
Heavy Vehicles, %	0	3	7	0	0	0
Mvmt Flow	14	606	440	24	32	19

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	464	0	-	0	1086	452
Stage 1	-	-	-	-	452	-
Stage 2	-	-	-	-	634	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1108	-	-	-	242	612
Stage 1	-	-	-	-	645	-
Stage 2	-	-	-	-	532	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1108	-	-	-	237	612
Mov Cap-2 Maneuver	-	-	-	-	237	-
Stage 1	-	-	-	-	633	-
Stage 2	-	-	-	-	532	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	19
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1108	-	-	-	308
HCM Lane V/C Ratio	0.012	-	-	-	0.165
HCM Control Delay (s)	8.3	0	-	-	19
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.6

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	25	584	445	42	60	22
Future Vol, veh/h	25	584	445	42	60	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	84	84	92	92
Heavy Vehicles, %	0	1	2	0	0	0
Mvmt Flow	27	635	530	50	65	24

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	580	0	-	0	1244	555
Stage 1	-	-	-	-	555	-
Stage 2	-	-	-	-	689	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1004	-	-	-	194	535
Stage 1	-	-	-	-	579	-
Stage 2	-	-	-	-	502	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1004	-	-	-	186	535
Mov Cap-2 Maneuver	-	-	-	-	186	-
Stage 1	-	-	-	-	555	-
Stage 2	-	-	-	-	502	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	31.1
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1004	-	-	-	225
HCM Lane V/C Ratio	0.027	-	-	-	0.396
HCM Control Delay (s)	8.7	0	-	-	31.1
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0.1	-	-	-	1.8

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	17	555	425	44	57	21
Future Vol, veh/h	17	555	425	44	57	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	89	89	92	92
Heavy Vehicles, %	0	3	7	0	0	0
Mvmt Flow	19	631	478	49	62	23

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	527	0	-	0	1172	503
Stage 1	-	-	-	-	503	-
Stage 2	-	-	-	-	669	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1050	-	-	-	215	573
Stage 1	-	-	-	-	612	-
Stage 2	-	-	-	-	513	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1050	-	-	-	209	573
Mov Cap-2 Maneuver	-	-	-	-	209	-
Stage 1	-	-	-	-	595	-
Stage 2	-	-	-	-	513	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	26.4
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1050	-	-	-	252
HCM Lane V/C Ratio	0.018	-	-	-	0.336
HCM Control Delay (s)	8.5	0	-	-	26.4
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0.1	-	-	-	1.4

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	25	584	458	42	70	25
Future Vol, veh/h	25	584	458	42	70	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	84	84	92	92
Heavy Vehicles, %	0	1	2	0	0	0
Mvmt Flow	27	635	545	50	76	27

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	595	0	-	0	1259	570
Stage 1	-	-	-	-	570	-
Stage 2	-	-	-	-	689	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	991	-	-	-	190	525
Stage 1	-	-	-	-	570	-
Stage 2	-	-	-	-	502	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	991	-	-	-	182	525
Mov Cap-2 Maneuver	-	-	-	-	182	-
Stage 1	-	-	-	-	546	-
Stage 2	-	-	-	-	502	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	35.1
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	991	-	-	-	220
HCM Lane V/C Ratio	0.027	-	-	-	0.469
HCM Control Delay (s)	8.7	0	-	-	35.1
HCM Lane LOS	A	A	-	-	E
HCM 95th %tile Q(veh)	0.1	-	-	-	2.3

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	17	555	447	44	85	28
Future Vol, veh/h	17	555	447	44	85	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	88	88	89	89	92	92
Heavy Vehicles, %	0	3	7	0	0	0
Mvmt Flow	19	631	502	49	92	30

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	551	0	-	0	1196	527
Stage 1	-	-	-	-	527	-
Stage 2	-	-	-	-	669	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1029	-	-	-	208	555
Stage 1	-	-	-	-	596	-
Stage 2	-	-	-	-	513	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1029	-	-	-	202	555
Mov Cap-2 Maneuver	-	-	-	-	202	-
Stage 1	-	-	-	-	579	-
Stage 2	-	-	-	-	513	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	34.7
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1029	-	-	-	240
HCM Lane V/C Ratio	0.019	-	-	-	0.512
HCM Control Delay (s)	8.6	0	-	-	34.7
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0.1	-	-	-	2.7

Broadway at the Project Site Driveway

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	583	428	1	0	0
Future Vol, veh/h	0	583	428	1	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	634	465	1	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	466	0	-	0	1100	466
Stage 1	-	-	-	-	466	-
Stage 2	-	-	-	-	634	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1095	-	-	-	235	597
Stage 1	-	-	-	-	632	-
Stage 2	-	-	-	-	529	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1095	-	-	-	235	597
Mov Cap-2 Maneuver	-	-	-	-	235	-
Stage 1	-	-	-	-	632	-
Stage 2	-	-	-	-	529	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1095	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	545	402	2	0	0
Future Vol, veh/h	0	545	402	2	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	592	437	2	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	439	0	-	0	1030	438
Stage 1	-	-	-	-	438	-
Stage 2	-	-	-	-	592	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1121	-	-	-	259	619
Stage 1	-	-	-	-	651	-
Stage 2	-	-	-	-	553	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1121	-	-	-	259	619
Mov Cap-2 Maneuver	-	-	-	-	259	-
Stage 1	-	-	-	-	651	-
Stage 2	-	-	-	-	553	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1121	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	609	453	14	0	0
Future Vol, veh/h	3	609	453	14	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	662	492	15	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	507	0	-	0	1168	500
Stage 1	-	-	-	-	500	-
Stage 2	-	-	-	-	668	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1058	-	-	-	214	571
Stage 1	-	-	-	-	609	-
Stage 2	-	-	-	-	510	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1058	-	-	-	213	571
Mov Cap-2 Maneuver	-	-	-	-	213	-
Stage 1	-	-	-	-	607	-
Stage 2	-	-	-	-	510	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1058	-	-	-	-
HCM Lane V/C Ratio	0.003	-	-	-	-
HCM Control Delay (s)	8.4	0	-	-	0
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	572	425	21	0	0
Future Vol, veh/h	5	572	425	21	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	622	462	23	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	485	0	-	0	1106	474
Stage 1	-	-	-	-	474	-
Stage 2	-	-	-	-	632	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1078	-	-	-	233	590
Stage 1	-	-	-	-	626	-
Stage 2	-	-	-	-	530	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1078	-	-	-	231	590
Mov Cap-2 Maneuver	-	-	-	-	231	-
Stage 1	-	-	-	-	622	-
Stage 2	-	-	-	-	530	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1078	-	-	-	-
HCM Lane V/C Ratio	0.005	-	-	-	-
HCM Control Delay (s)	8.4	0	-	-	0
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	7	609	456	27	0	0
Future Vol, veh/h	7	609	456	27	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	662	496	29	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	525	0	-	0	1189	511
Stage 1	-	-	-	-	511	-
Stage 2	-	-	-	-	678	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1042	-	-	-	208	563
Stage 1	-	-	-	-	602	-
Stage 2	-	-	-	-	504	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1042	-	-	-	206	563
Mov Cap-2 Maneuver	-	-	-	-	206	-
Stage 1	-	-	-	-	595	-
Stage 2	-	-	-	-	504	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1042	-	-	-	-
HCM Lane V/C Ratio	0.007	-	-	-	-
HCM Control Delay (s)	8.5	0	-	-	0
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	572	432	43	0	0
Future Vol, veh/h	10	572	432	43	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	622	470	47	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	517	0	-	0	1138	494
Stage 1	-	-	-	-	494	-
Stage 2	-	-	-	-	644	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1049	-	-	-	223	575
Stage 1	-	-	-	-	613	-
Stage 2	-	-	-	-	523	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1049	-	-	-	219	575
Mov Cap-2 Maneuver	-	-	-	-	219	-
Stage 1	-	-	-	-	603	-
Stage 2	-	-	-	-	523	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1049	-	-	-	-
HCM Lane V/C Ratio	0.01	-	-	-	-
HCM Control Delay (s)	8.5	0	-	-	0
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Sunnyside Avenue at the Project Site Driveway

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	8	0	48	24	0
Future Vol, veh/h	0	8	0	48	24	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	9	0	52	26	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	78	26	-	0	-	0
Stage 1	26	-	-	-	-	-
Stage 2	52	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	-
Pot Cap-1 Maneuver	925	1050	0	-	-	0
Stage 1	997	-	0	-	-	0
Stage 2	970	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	925	1050	-	-	-	-
Mov Cap-2 Maneuver	925	-	-	-	-	-
Stage 1	997	-	-	-	-	-
Stage 2	970	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.5	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	1050	-
HCM Lane V/C Ratio	-	0.008	-
HCM Control Delay (s)	-	8.5	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	2	0	33	30	0
Future Vol, veh/h	0	2	0	33	30	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	2	0	36	33	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	69	33	-	0	-	0
Stage 1	33	-	-	-	-	-
Stage 2	36	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	-
Pot Cap-1 Maneuver	936	1041	0	-	-	0
Stage 1	989	-	0	-	-	0
Stage 2	986	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	936	1041	-	-	-	-
Mov Cap-2 Maneuver	936	-	-	-	-	-
Stage 1	989	-	-	-	-	-
Stage 2	986	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.5	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	1041	-
HCM Lane V/C Ratio	-	0.002	-
HCM Control Delay (s)	-	8.5	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0	-

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	28	0	67	54	0
Future Vol, veh/h	0	28	0	67	54	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	30	0	73	59	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	132	59	-	0	-	0
Stage 1	59	-	-	-	-	-
Stage 2	73	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	-
Pot Cap-1 Maneuver	862	1007	0	-	-	0
Stage 1	964	-	0	-	-	0
Stage 2	950	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	862	1007	-	-	-	-
Mov Cap-2 Maneuver	862	-	-	-	-	-
Stage 1	964	-	-	-	-	-
Stage 2	950	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.7	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	1007	-
HCM Lane V/C Ratio	-	0.03	-
HCM Control Delay (s)	-	8.7	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0.1	-

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	25	0	61	53	0
Future Vol, veh/h	0	25	0	61	53	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	27	0	66	58	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	124	58	-	0	-	0
Stage 1	58	-	-	-	-	-
Stage 2	66	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	-
Pot Cap-1 Maneuver	871	1008	0	-	-	0
Stage 1	965	-	0	-	-	0
Stage 2	957	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	871	1008	-	-	-	-
Mov Cap-2 Maneuver	871	-	-	-	-	-
Stage 1	965	-	-	-	-	-
Stage 2	957	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.7	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	1008	-
HCM Lane V/C Ratio	-	0.027	-
HCM Control Delay (s)	-	8.7	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0.1	-

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	41	0	67	54	0
Future Vol, veh/h	0	41	0	67	54	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	45	0	73	59	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	132	59	-	0	-	0
Stage 1	59	-	-	-	-	-
Stage 2	73	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	-
Pot Cap-1 Maneuver	862	1007	0	-	-	0
Stage 1	964	-	0	-	-	0
Stage 2	950	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	862	1007	-	-	-	-
Mov Cap-2 Maneuver	862	-	-	-	-	-
Stage 1	964	-	-	-	-	-
Stage 2	950	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.7	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	1007	-
HCM Lane V/C Ratio	-	0.044	-
HCM Control Delay (s)	-	8.7	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0.1	-

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	60	0	61	53	0
Future Vol, veh/h	0	60	0	61	53	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	65	0	66	58	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	124	58	-	0	-	0
Stage 1	58	-	-	-	-	-
Stage 2	66	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	-
Pot Cap-1 Maneuver	871	1008	0	-	-	0
Stage 1	965	-	0	-	-	0
Stage 2	957	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	871	1008	-	-	-	-
Mov Cap-2 Maneuver	871	-	-	-	-	-
Stage 1	965	-	-	-	-	-
Stage 2	957	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.8	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT
Capacity (veh/h)	-	1008	-
HCM Lane V/C Ratio	-	0.065	-
HCM Control Delay (s)	-	8.8	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0.2	-

ESKAR, LLC

PROPOSED TRANSPORTATION DEMAND MANAGEMENT PLAN

Eskar, LLC proposes the following transportation demand management plan practices:

1. Onsite interior space provided for employee bicycle parking.
2. Additional onsite customer bike parking. See the site plan.
3. Subsidized employee public transit passes.
4. Temporary parking attendants during the initial opening phase to direct traffic into and out of the parking lot and to manage any exterior queues that may form.
5. Request that Town designate two parking spots on Broadway abutting the property as limited to ride-share vehicles only.
6. Publish public transportation information on the company website and in-store for customers.
7. Online sales of products, which will assist in parking space turnover.

Eskar Arlington, LLC
9 Wildwood Road
Middleton, Massachusetts 01949

June 24, 2020

Kentury Ventures, LLC
21 Broadway
Arlington, Massachusetts 02474
Attention: Jimmy Chen

RE: Parking at 23 Broadway, Arlington, MA (the "Leased Premises")
Lease dated June 14, 2019 (the "Lease") between Kentury Ventures, LLC (the "Landlord") and Eskar Arlington, LLC, as assignee of Eskar, LLC (the "Tenant")

Dear Jimmy:

This letter will confirm that the Landlord has agreed to lease additional 8 parking spaces to Tenant in separate lease terms. There will be total of 12 parking spaces in addition to the previous 4 parking spaces included in the original 1st floor lease.

Please confirm the Landlord's agreement with the foregoing where set forth below.

Thank you.

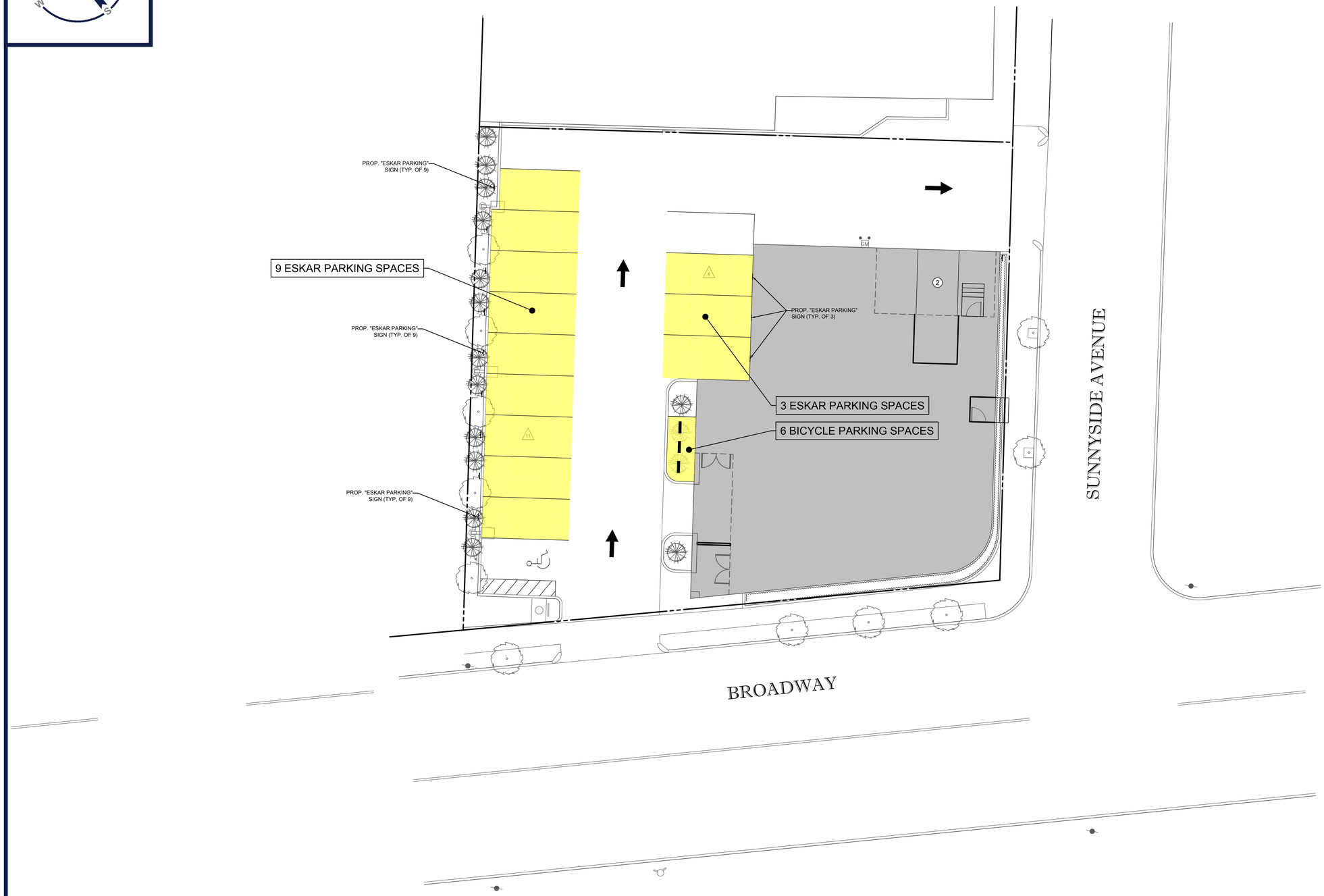
Eskar Arlington, LLC

By: _____
Michael Aldi
Its: Manager

ACCEPTED AND AGREED:

Kentury Ventures, LLC

By: _____
Its:



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PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY / CHECKED BY

811 Know what's below. Call before you dig.

ALWAYS CALL 811

It's fast. It's free. It's the law.

PERMIT SET

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.:	W201195
DRAWN BY:	NPD
CHECKED BY:	RMM
DATE:	08/19/2020
CAD I.D.:	W201195-CVL-0

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

ESKAR

PROPOSED DEVELOPMENT

MAP #33, BLOCK #2, LOT #3
23 BROADWAY
TOWN OF ARLINGTON
MIDDLESEX COUNTY, MASSACHUSETTS

BOHLER

352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900

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MAINE LICENSE No. 13816
CONNECTICUT LICENSE No. 38785
RHODE ISLAND LICENSE No. 11425

SHEET TITLE:

PARKING EXHIBIT

SHEET NUMBER:

1

ORG. DATE - 08/19/2020